

**FUNDAMENTALS
OF PSYCHIATRY**

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BY

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This edition is dedicated to the ever-increasing number of medical students, *internes, residents and practitioners* in all the areas of medicine who, wishing to be *complete* physicians, realize that man is unified and total in his functioning and that, therefore, human disease must be treated, not merely at the level of somatic pathology, but also in the area of emotional conflicts and their deceptive psychosomatic expressions.

Preface to the Fifth Edition

The outstanding need of Psychiatry is personnel—much more personnel. Instead of the 5,000 available, there should be at least 20,000 trained psychiatrists to fight the battle for the huge number of psychotic patients in mental hospitals (more hospital beds are needed for mental patients than for all other sick people combined) and outside of these institutions; the 5,000,000 psychoneurotics; the more than 2,000,000 alcoholics; the 3,500,000 mental defectives, etc.

The field of prevention now so ready for the tilling has scarcely been touched. Here there are such serious medical and social problems as the damage inflicted upon children and society by the shameful prevalence of divorce, and the dangerous threat of rapidly increasing juvenile delinquency and crime. It is a sad commentary upon our culture that of the 24,000,000 school children more than one in every 12 will need psychiatric attention in adult life, and definitely more than a million are destined to become patients in public mental hospitals. Much of this has come about for want of personnel, in large measure due to the fact that while billions of dollars can be found to produce atomic bombs of destruction, yet only a very few millions have been made available to safeguard and improve the mental health of the nation!

A very irksome barrier is that in spite of the fact that Psychiatry has succeeded in writing a successful formula for the kind of childhood which in adult life will yield a reasonable degree of emotional maturity—a formula of being wanted, loved, protected, made emotionally secure and at the same time gradually emancipated from the maternal and paternal apron strings—yet there are not sufficient ways and means available to spread the doctrine widely. What will it profit us, our way of life and our democracy, if there is a majority of emotionally immature people, personally and socially inadequate, many of them mentally and nervously disabled? Emotional immaturity will be more destructive than an "H" bomb.

This edition is addressed particularly to general practitioners and workers in every area of medicine and surgery. They *should* and *must* treat great numbers of patients suffering from psychoneurotic and psychosomatic disabilities. It is hoped that their interest in the basic principles of psychiatry will be stimulated. Such interest and understanding will yield valuable dividends, since about

Preface to the First Edition

It is fortunate that the widespread and increasing interest in psychiatry on the part of physicians and medical students comes at a time when psychiatry has more to offer than ever before in its history. The insistent demand for essential data organized in systematic and usable fashion can now be supplied.

The so called "chronic" segment of the psychoses, somewhat discouraging to students, is no longer chronic. A positive therapeutic attitude has forced open the portals of chemical, pharmacologic, electrical, and even surgical treatment. It is too soon to evaluate finally the net results of the drastic therapies, but already it is obvious that a two fold gain has been made. First, unquestionably, in schizophrenia, manic-depressive psychoses, and in involutional melancholia, the drastic therapies have produced a marked increase in the number and duration of symptom free periods. Second, the drastic therapies have stimulated a renaissance of interest and a concerted scientific attack upon the problem of the fundamental nature of the human emotions from many angles—chemical, pharmacologic, neurophysiologic, and psychological.

In the conception of psychosomatic medicine which has now attained much prominence, internal medicine and its subdivisions have acknowledged the leadership of psychiatry and the authenticity of its "mind body" teachings.

The concept of psychosomatic medicine is very ancient. As long ago as the fifth century, B.C., Socrates, returning from the Thracian campaign, praised the wisdom of the physicians of Thrace in their understanding and application of the principle that the body could not be relieved of symptoms, without first curing the mind. He adjured the physicians of Greece to do likewise.

Several decades ago psychiatry, profiting by its earlier mistakes began insisting upon the fundamental unity of man. In effect, it clearly stated the basic principles upon which psychosomatic medicine now rests. That in health and disease, each emotional reaction mild or severe, has immediate repercussions in every tissue and cell of the body. Conversely, each somatic reaction, physiologic or pathologic, mild and transient, or severe and permanent, at once has emotional reverberations. Internal medicine was interested but rather dubious until there had been made the clinical demonstration of the dynamic significance of anxiety in the genesis of struc

tural pathology, notably peptic ulcer. The last formidable barrier between internal medicine and psychiatry has been demolished.

Obviously, the closer union between internal medicine and psychiatry will produce valuable dividends. Indeed, already they are being realized in practice. Psychiatrists are viewing somatic perspectives with renewed interest. All physicians are turning eagerly to psychiatry for lessons which will give them a better understanding of so called functional symptoms and teach them psychiatric technics of management. It is now clearly comprehended that an illness, *any illness*, even though it may appear to be restricted to the physical in its clinical expression, nevertheless always contains a mental component which must be appreciated and treated.

Psychiatry has utilized the opportunities of each new era and trend as it emerged—humanitarianism, descriptive psychiatry, somatic explorations, psychogenesis, psychosomatogenesis. From each era it retained that which was valuable and relinquished that which proved useless. There is now available a body of information which is needed by every physician in his daily practice, and which, moreover, is essential to the undergraduate medical student in achieving a complete view of the whole complex domain of medicine into which he is entering.

To bring this body of information, in usable form, to the medical student and practitioner is the purpose of this book. No one knows better than does the physician the truth of the Preacher's words "Of the making of books there is no end and much study is a weariness to the flesh." It is my hope that the compact form of this book will enable the reader to obtain, with a minimum of time, a workable picture of the field of psychiatry—knowledge which constantly can be interwoven with his work.

This book has grown out of the teaching experience of the author and each presentation and diagram has been subjected to the test of the classroom—perhaps the severest test that any book can receive.

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The Importance and the Opportunities of Psychiatry

HISTORICAL BACKGROUND

Psychiatry is very ancient, and in the records of various crude forms and devices, its history is co extensive with the history of the human race. The history of psychiatry is not altogether pleasant reading. In its earlier chapters there are many accounts of needless suffering, and many of its pages are blotted by examples of "man's inhumanity to man."

In the Middle Ages, and beyond, the "treatment" accorded the helpless mentally sick may be pictured from the following description: "Men covered with filth cowered in cells of stone, cold, damp, without air or light and furnished with a straw bed that was rarely renewed and which soon became infectious—frightful dens where we would scruple to lodge the vilest animals. The insane, thrown into these receptacles, were at the mercy of their attendants and these attendants were convicts from prison. The unhappy patients were loaded with chains and bound like galley slaves."

Even in medically enlightened Philadelphia, within a decade of the American Revolution, on Sunday afternoons, upon the payment of a small coin, a groat, the public was admitted to the Pennsylvania Hospital and permitted to view the insane!

Degrading as were such attitudes toward the mentally sick and cruel as was their treatment, it was not altogether illogical when considered in the historical context and contemporary cultural patterns. Seemingly, the mind of man, even from its very beginnings, has been so constituted that it is compelled to seek an explanation for the phenomena it beholds, whether it be a phenomenon of nature such as a bolt of lightning or the strange behavior which may flow from a disordered mind.

Modern thinking is still too liberally streaked with the remnants of a once universal pattern of thinking, replete with superstitious fears and taboos. One need not retrace man's history through many

centuries before arriving at the time when the primitive dominated the minds of all but a few men. It was altogether natural that strange and frightening behavior of the mentally sick should have been ascribed to possession by the devils and their myriads of spirits. From such premises, there followed, not illogically, the conclusion that the thing to do was to scourge and otherwise torment the possessed body, making it so uncomfortable as a dwelling place that the evil spirits would gladly depart from it, forthwith.

Here and there along the historical path of psychiatry are milestones of progress, brilliantly lighted shafts, beacons of promise and future attainments. As early as 460 B.C. Hippocrates declared "the brain is the organ of the mind." Thus, more than twenty centuries ago there was enunciated a doctrine which today is explanatory of organic psychoses, such as paresis, the symptoms of which are largely due to structural pathology of the brain.

Another significant milestone was erected in 1793 by Pinel, who, in the shadow of the threat of the guillotine, made a gallant humanitarian gesture by striking the chains from the mad in the Salpêtrière. Without benefit of Pinel's humane act, the growth, the development and the achievements of modern psychiatry would scarcely have been possible. It is an obligation to re-emphasize that unless inadequacies and abuses in the care of the mentally sick in many public hospitals are corrected speedily, there is real danger that in this area there will be a regression to the Dark Ages of psychiatry.

All in all, the beginnings of psychiatry were very humble and sordid. By contrast, its present honored position in medicine is all the more amazing and significant. Psychiatry is now a young but hardy science. It has acquired a considerable body of information. It has valuable lessons to impart—lessons much needed in the general practice of medicine and all its divisions.

Psychiatry has developed its own group of specialties—mental hygiene, child guidance, industrial psychiatry, psychoanalysis, medicolegal psychiatry, penal psychiatry, etc. Each of these disciplines performs a large and much-needed function.

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THE INTERWEAVING OF PSYCHIATRY AND OTHER MEDICAL SPECIALTIES

The tremendous number of neuropsychiatric patients, literally millions, is only the smallest part of the reason why each physician should have an understanding of the principles and the practice of psychiatry and should cultivate a psychiatric viewpoint. Much

more important is the fact that the territory of internal medicine and all its specialties and the territory of psychiatry merge into each other. Internists, gastro enterologists, dermatologists, obstetricians, indeed all practitioners and psychiatrists in their daily work are constantly stepping back and forth from one domain to the other. One day a patient has an uncomplicated lobar pneumonia, the next day, with an increase in fever and toxicity, there is a toxic psychosis. An individual contracts lues. Subsequently, the spirochete invades the brain tissue, and the patient shows mental symptoms. He has paresis. And so on. Often internal medicine and psychiatry deal with the same set of causes: lues, arteriosclerosis, fever, exogenous poisons like alcohol or lead, endogenous intoxications such as are produced in the course of diseases, infectious and otherwise, which shift the metabolic balance, endocrine dyscrasias, etc. In truth, one cannot be a doctor without being a psychiatrist, or a psychiatrist without being a doctor.

An even stronger reason for enlarging the psychiatric perspective is the existence of an "X" quantity in every so called physical illness, be the illness severe or trivial. This "X" quantity is the reaction of the psyche or personality to the invading disease. Psychiatry, long since, emphasized and insisted upon the fundamental unity and indivisibility of man. The basic functional entwining of somatic and emotional processes is expressed by Figure 1. Psychiatrists were the first to teach that an individual could not be sick *only* in his body or *only* in his mind. If the patient is physically sick, it follows that he will be sick also in his emotions and in his personality. If he is sick in his personality, then the illness will reverberate in every cell and tissue of the body. The physician who is not capable of recognizing the psychiatric component of somatic disease never can hope to become more than a good clinical technician. At the intrusion of emotional personality reactions he is nonplused and is sadly lacking in management and treatment technics.

Perhaps the strongest reason for the physician to strive to acquire a certain amount of psychiatric insight is the large segment of functional sickness* which occurs in the daily practice of medicine. From expert nonpsychiatric testimony, by internists, gastro enterol-

* The word 'functional' here and throughout this book is employed according to its common but rather unfortunate usage, that is, human illness in which there is insufficient organic or toxic pathology to explain the symptoms. Actually, all disease is functional, since always there is involved a disturbance of the organs and the parts of the body. The only difference between "organic" and 'functional' is that in the former the preponderance of symptoms may be referred to tissue pathology, in the latter, to unsolved emotional conflicts—psychopathology.

ogists and others, this functional segment exceeds 50 per cent. It occurs either in a pure form as well defined psychoneuroses, or more often (and of greater significance to the practitioner) it presents as an overlayer of functional symptoms imposed upon a somatic basis. It represents a serious disorder of various bodily

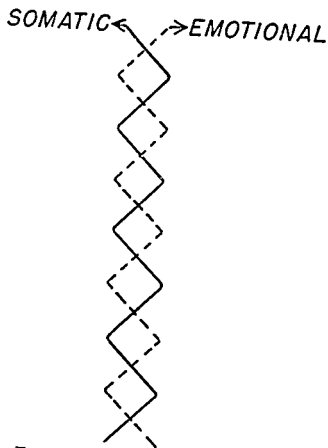


FIG 1 The basic functional entwining of somatic and emotional processes

functions motivated by emotional conflict. Unless this is clearly understood—and unless it is understood, too, that symptoms may be the result of a pathology which is not structural, a psycho-pathology—the therapy will be ineffective. It may degenerate into a will o' the wisp pursuit of inconsequential somatic pathology. It is always possible to discover a fractional deviation of the nasal septum, a fancied imbalance of the ocular muscles, a dead tooth or two, a questionable ptosis of the stomach and other viscera and the like. Once this fallacious step has been taken it will lead to strange therapies—from special corsets and frequent gastric lavage to expensive spas, from frantic prescription writing on a sympto-

matic basis to useless surgery. These and other treatments cannot possibly help functionally sick patients. They will serve only to impress the functional disorders more deeply. The last state of such patients will be much worse than the first.

It must be repeated with emphasis that functional additions to underlying structural pathology are extremely common.* Any and every ordinary situation in everyday practice may provide the foundation for functional superstructures. There is never a "normal delivery" which lacks the potentiality of a long train of functional symptoms, never a simple fracture without the possibility of an aftermath of functional disturbances of motion and sensation, never an illness, the convalescence from which may not be abruptly halted by functional incapacities.

The presenting symptoms themselves do not have affixed to them identifying labels denoting their organic or functional origin. On the surface the presenting symptoms are the same: headache, pain, convulsions, vertigo, nausea, vomiting, bradycardia, tachycardia, in short, a legion of symptoms, referable to any system and organ of the body. The subjective or objective test is by no means an infallible criterion, since in functional illness, the symptoms are as real as they are in organic disease and often can be demonstrated objectively. For instance, a pulse rate of 120 or more, as is frequently encountered in an anxiety neurosis, is as real and demonstrable as in organic heart disease.

PSYCHOSOMATIC MEDICINE

In this connection, the rapidly increasing interest in so-called psychosomatic medicine is significant. Psychosomatic medicine has staked out a large clinical area, adjoining on one side the territory of internal medicine and its subdivisions and, on the other, the territory of psychiatry. In this area psychiatrists work on the same problems as do their fellow physicians. It is the meeting place of the somatic and the functional and here, as in certain instances of peptic ulcer, may be witnessed end products, in terms of tissue

* Some years ago I reviewed the experiences of former students who had been five years in general practice. The following letter is fairly representative of a cross section of many reports: "At the present time I should say Psychiatry is the most important phase of medical education. My observation is that the average young American of today is faced with some psychiatric problem as often as he is afflicted by an upper respiratory infection. One half of my patients suffer from mental disorders, either with or without organic disease."

pathology, of too long continued functional derangements conditioned by anxiety.

HISTORICAL CHANGES OF EMPHASIS IN PSYCHIATRY

Once having divested itself of its cruel and archaic impedimenta and becoming committed to a humanitarian policy of kind understanding and treatment of its patients, psychiatry in not more than a century has made remarkable progress. Among other accomplishments, it has passed through a Descriptive Era, during which the clinical pictures of psychotic entities were drawn with painstaking exactitude. Very early in its scientific investigations, it undertook somatic explorations. There was the brilliant solution of the problem of paresis, the neuropathologic conquest of the senile and arteriosclerotic psychoses, the identification in the clinical chemical laboratory of the formulae of many psychiatric reactions elicited by exogenous intoxications and endogenous toxicities. The somatic explorations continue actively. Psychiatric explorers now utilize every available instrument and technic of precision and often invent and perfect their own methods. Serology, metabolic chemistry, neurophysiology and electroencephalography are only a few of the areas in which psychiatry is working and breaking new ground for the medical sciences as a group.

Relatively soon, psychiatrists became dissatisfied with mere clinical descriptions, however carefully made and reported. There was increasing evidence that much important material was hidden below the surface—that in every human being there were deep psychic reservoirs, the content of which was not within the area of everyday consciousness. Many psychiatrists, employing various devices and techniques, began to bring up considerable material from below the threshold of consciousness. They scrutinized this material very closely and began to understand some of its significance. Today, psychiatry could scarcely be practiced without some attempt at the interpretation of the symptoms found in patients and some understanding of the various mental mechanisms which operate to bring the symptoms into existence and give them a particular character. In this day, psychiatrists are not at all content with the discovery of hallucinations, delusions, amnesias and other symptoms in their patients—no more satisfied than would be clinicians at the discovery of fever in patients or the identification of heart sounds heard by auscultation in aortic regurgitation. Clinicians insist on attempting to determine the reasons and the mechanisms of the fevers and the abnormal heart sounds of their patients. Likewise,

psychiatrists seek to uncover the mechanisms and the psychic dynamic forces which produce and shape mental symptoms. Perhaps auditory hallucinosis, in which the "voices" belittle the patient's sexual powers and accuse him of perverted sexual practices, may be explainable on the basis of a large component of latent homosexuality in the personality. The source of many of the psychoneurotic and psychosomatic symptoms in adult life is to be found in the unconscious hostilities, inadequacies and immaturities shaped in childhood by grievously unsatisfactory child-mother and child-father relationships.

There have been given only a few of the many reasons why all physicians should be interested in psychiatry and why, particularly at this time, they should acquire some understanding of its principles and technics. Now that the background has been sketched in, etiologic considerations can be discussed profitably.

Etiology

ETIOLOGIC FACTORS

In considerable degree, there still persists in the mind of the public, and in the thinking of a section of the medical profession, the naive belief that psychiatrists are hopelessly groping in the dark for the causes of the symptoms and the diseases which occur in their patients. This belief is a survival from the era of belief in demoniacal possession and other even more bizarre superstitions. Only recently I was cautioned by anxious relatives, who had entrusted a patient to my care, to be sure that the shades of the patient's room were carefully drawn when the moon was at its full, since the light of the moon, if it fell upon the patient, would surely make her very much worse! (Lunacy.)

Actually, psychiatry has accumulated a considerable body of etiologic information. Probably not less than one-half of all mental disease finds a satisfactory, although not a complete, explanation in the same basic causes which are operative in all diseases—lues, arteriosclerosis, intoxications and auto-intoxications, trauma, metabolic disorders, endocrine disturbances and many others. Since man is an indivisible somatic-psychic unit, these causes involve the *totality of man*. In some instances the predominance of symptoms is physical; in others, it is mental. There are no gods or devils here—just plain facts of everyday pathology.

VESTIGES OF PRIMITIVE THINKING

While psychiatry has made much progress in uncovering fundamental etiology, yet it is likely that advances would have been even more rapid if there had not been for a time the barrier of what I have called "post hoc, ergo propter hoc" thinking

"Post hoc, ergo propter hoc" thinking is a vestige of the simple pattern of thought of our primitive ancestors. They believed that because two things happened in sequence, the second, of necessity, must be due to the first. Thus, if one of their number mysteriously died or disappeared they might attribute it to a loud clap of thunder which they had heard the day before.

Such erroneous conclusions, translated into terms of psychiatry, gained many adherents even in recent times. For instance, it was noted that in some mental patients, the removal of foci of infection in the teeth, the tonsils and elsewhere was followed by considerable improvement. This led to the sweeping inference that not only all mental illness but also all mental defects, epilepsy, psychoneurosis, criminality and many other abnormal states were due to focal infection and would be cured by the eradication of the infection. There followed a surgical debauch of amazing proportions: countless teeth, tonsils and cervicū uterī were removed, and thousands of yards of the large colon were resected. Of course, the results were inconsequential. Fortunately, sobriety of reasoning returned. However, the principle that, without respect to etiologic significance, mental patients should be freed of infection whenever possible was more firmly established. This always had been held and practiced by sensible psychiatrists.

In the wake of the brilliant demonstration by Noguchi and Moore of the spirochete in the brain tissue of paretics, the devotion to neuropathology was too single minded. Ardent researchers actually believed that in some of the layers of the cells of the brain they would discover a structural pathology explanatory of the transient symptoms of conversion hysteria. This, too, ran its course. Now, neuropathologists are industriously and tellingly engaged in investigations which give a reasonable promise of being concluded successfully.

Certain scientifically startling and therapeutically decisive material, unearthed from the nonconscious levels of the psyche, set into motion an overenthusiastic subscription to the theory of psychogenic causation. There was a flagrant disregard of the previously ascertained facts of the pathology of the central nervous tissue and their dynamic importance in the determination of mental symp

Etiology

ETIOLOGIC FACTORS

In considerable degree, there still persists in the mind of the public, and in the thinking of a section of the medical profession, the naive belief that psychiatrists are hopelessly groping in the dark for the causes of the symptoms and the diseases which occur in their patients. This belief is a survival from the era of belief in demoniacal possession and other even more bizarre superstitions. Only recently I was cautioned by anxious relatives, who had entrusted a patient to my care, to be sure that the shades of the patient's room were carefully drawn when the moon was at its full, since the light of the moon, if it fell upon the patient, would surely make her very much worse! (Lunacy)

Actually, psychiatry has accumulated a considerable body of etiologic information. Probably not less than one half of all mental disease finds a satisfactory, although not a complete, explanation in the same basic causes which are operative in all diseases—lues, arteriosclerosis, intoxications and auto intoxications, trauma, metabolic disorders, endocrine disturbances and many others. Since man is an indivisible somatic psychic unit, these causes involve the totality of man. In some instances the predominance of symptoms is physical, in others, it is mental. There are no gods or devils here—just plain facts of everyday pathology.

It is true that in several large fields of mental disease, notably in schizophrenia and manic depressive psychoses, the specific etiologic factor still eludes scientific research. Nevertheless, even here much progress has been made, particularly in chemical, metabolic, neurophysiologic and electrical investigations, in the intensive study of personality types, both in their somatic and dispositional markings and in the more nearly accurate interpretations of psychotic speech and behavior resulting from the deeper penetration into the vast territory of man's unconscious psyche.

- 3 Sex
- 4 Environmental factors
- 5 Occupation
- 6 Previous attack

Inheritance. Inheritance is an important predisposing cause, but its importance has been grossly overestimated. The Mendelian law is rarely applicable to human disease, except in such degenerative conditions as hemophilia, Huntington's chorea, familial muscular dystrophy and, perhaps, certain aspects of mental defect and epilepsy. These conditions are defects rather than diseases. Direct inheritance may be very significant but, even when it exists, its effect is likely to produce heterogeneous constitutional liabilities rather than the same psychosis. Mental disease in the collateral family must be weighed cautiously. A family genetic escutcheon that does not reveal an occasional psychiatric bar sinister is exceedingly rare.

Age Epoch. The age epoch may be significantly predisposing. In this respect, human beings are fairly comparable with nations. Nations are conceived and born. If they survive the many hazards of the first period of existence and, as it were, their adolescence, they may expect to attain a strong and lusty adult existence. Then, they are at the peak of their strength and power. A nation may remain powerful and invulnerable for a long time—even for centuries. Nevertheless, the lessons of history are inescapable. Eventually, nations come to their climacteric. If the nation is intrinsically sound and has builded well, then the climacteric may be truly a climax and the nation may long enjoy the completion of all its potentialities. Finally, however, the life of the nation will have run its course. It comes to its old age—its decline. It becomes weak and insecure and is vulnerable to external and internal dangers. Then it dies.

Likewise is the human being conceived and born. If he escapes the hazards of infancy and early life, the first perilous period for the mind is adolescence and the few years thereafter. That the peril is considerable at this time is reflected in the sharp statistical rise in mental disease, largely schizophrenia. The next epochal danger is the involution, not only for women but also for men. For human beings, as for nations, if the life experiences and the reactions to them have been such as to produce a fair degree of stability and security, then there should be a reasonably long sustained level of maximum efficiency and maturity, intellectually and emotionally. Again, eventually and inevitably, there will appear the encroachments of old age, the inescapable physical and mental hazards of

toms Eventually, psychogenesis and psychotherapy came to know their own limitations, however, and, within this field, such studies and treatment efforts are increasingly fruitful

It is obvious that mental diseases cannot be explained on an "all-or-nothing" basis The facts and the phenomena of the psychoses are so varied and intricate that it is apparent that their causes are complex and multiple

PREDISPOSING CAUSES

A convenient method of studying etiology is to consider *predisposing* and *exciting* causes

Predisposing causes must not be confused with so called "precipitating" situations These are apt to be coincidental, often casual and relatively insignificant, life experiences which often occurred just prior to the beginning of the psychosis Generally, these situations have no more etiologic significance than do the usual *casus belli* "border" incidents, slights upon the national "honor," or the assassination of a statesman do not actually "cause" a war The real causes are more profound and important Neither a psychosis nor a psychoneurosis is caused by the death of a cousin or by a fall which occurred during childhood The laity is apt to be convinced that these and similar occurrences are the real causes and are not readily dissuaded, even by the logical argument that such life experiences are exceedingly common and that countless human beings experience similar and even more severe incidents yet do not become mentally sick

A predisposing cause prepares the soil for the implantation and the effect of the exciting cause and renders more likely the occurrence of a psychosis

Valid parallels are easy to find in internal medicine A man is undernourished, alcoholic, exposed to inclement weather These conditions increase his liability to pneumonia, they are predisposing However, it is necessary that the respiratory tissues come into contact with the exciting cause, i e., one of the pneumonia producing organisms, before the disease formula is completed An alcoholic develops a polyneuritis The alcoholism was predisposing, but a vitamin deficiency was exciting

SIGNIFICANT PREDISPOSING CAUSES

Perhaps the more significant predisposing causes are these

- 1 Inheritance
- 2 Age epoch

tially the victim of nervous and mental disease in adult life. A few of the childhood situations which are fraught with predisposing danger are these: insufficiency of love and of affectionate demonstrations, failure to help children emancipate themselves from parental authority and decision, however "loving" it may be, brutal or impersonal and nonexplanatory discipline, spoiling, lack of sex information which favors maladjustment to the sexual function later in life and perpetuates sex fantasy, constant friction between parents, and many other liabilities of omission and commission on the part of parents and others entrusted with the care of children. So many of these unhygienic personal environmental factors are so directly reflected in the psychoses and the psychoneuroses of adult life that we dare not discount the predisposing effect of personal environmental factors, particularly in childhood. In treating functional disease, physicians will be well repaid, if they focus intently upon the early childhood situations.

Occupation Occupation may, and frequently does, predispose to mental disease, both directly and indirectly. The expansion of industries which depend upon chemistry has not only greatly increased the number of exogenous poisons (metals, liquids, gases, etc.) to which the central nervous system of man is vulnerable, both physically and mentally, but has greatly increased the number of workers. Lead is a fair example of an industrial poison which may readily produce mental symptoms. Carbon bisulfide used in the rayon industry is another. Now there has been added the serious occupational hazards of workers in atom fission projects.

Occupation may predispose indirectly to the development of a psychosis. It has long been noted that among those men who earn their living as bartenders the incidence of alcoholic psychoses is high. It has been observed, too, that luetic psychoses occur with considerable frequency among sailors. So, too, there has been a fairly high narcotic addiction rate among physicians. Of course, the mere selling of potent alcoholic concoctions did not in itself render the bartender vulnerable to mental symptoms. Neither does anything that has to do with the navigation of a ship produce mental disease of luetic origin. Nor does the familiarity of the doctor with narcotic drugs determine an addiction. These and other occupations do make it easier to succumb to certain specific temptations. The bartender is more apt to drink too much of the alcohol with which he is in such constant contact, the sailor, at least in various ports at odd ends of the earth, may lead a "free" and unsupervised life and is likely to expose himself to lues, the physician at times of overwork and fatigue may experiment with his potent

senility If life endures, there will be progressive mental deterioration, often amounting to profound dementia

Again in nations and men alike, there are, in addition to the natural epochal hazards, frequent critical times coincidental and nonepochal In nations these crises are motivated by economic, political and spiritual vicissitudes, in human beings they are economic, entailing grave financial reverses, emotional, involving severe disappointment and rejections in the love life and deprivations by death and various combinations of physical and emotional strains as in childbirth

All in all, the age epoch is likely to include considerable predisposition, and it is helpful to view it from the triple perspective of etiology, diagnosis and treatment

Sex. The sex, in itself, does not carry either any predisposition to mental diseases or protection against them However, the sex graphs are uneven, and there are periods, notably the child bearing age and the climacteric, when mental diseases in women show a statistical rise

Environmental Factors Environmental factors are either general or personal They present serious predisposing risks

GENERAL FACTORS All of us are subject to general environmental hazards These include the considerable emotional penalty that must be paid for the kind of civilization in which we live—mechanized, highly industrialized, standardized, patterned, monotonous but still brutally competitive and overluxurious Currently, there is added the personally and socially disruptive impact of war and the almost universal fear and anxiety produced by the threat of annihilation from such instruments of war as the atomic bomb These handicaps of civilization serve to act as deterrents to the satisfaction of normal human instincts and desires, marriage, children, home building, etc

Although all human beings, excepting primitive savages, must accept these conditions and make the best of them, still individual resistance is variable It may be relatively insufficient innately, or at some particular cross section in life the resistance may be dangerously diminished due to a series of external drains Such events may widen the flaw in the personality so that a mental break results—a penalty exacted by our civilization

Since they should be to some extent avoidable, the personal predisposing environmental factors are more important than the general They may be embraced in the failure to provide children (all of whom are deeply impressionable and vulnerable emotionally) with even a minimum of satisfactory emotional mental hygiene That child who feels emotionally insecure and unwanted is poten-

The following diagram may clarify this conception

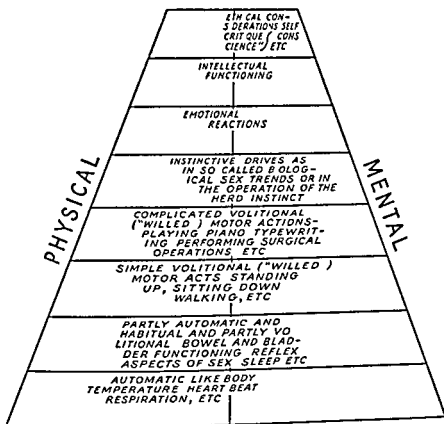


FIG 2 The position of the text in relation to the midline illustrates emphasis upon "somatic" or "psychic" at several levels of functioning

Fever incites to the appearance of mental symptoms. It is preponderantly somatic in its effect and expends its main forces upon bodily tissues, yet as a part of this process, it produces an interruption of consciousness, perhaps a delirium with the outpouring of material highly charged with emotion.

On the other hand, in some of the anxiety neuroses, the major area of the symptoms is at the ethical level. In France, during the First World War, I saw officers who had so distinguished themselves in action that they had received well deserved promotions. Yet they were in a state of pitiful "funk" because, for instance, they feared that by an ill timed command in action they might cause the death of some of their men. True, it was an ethical problem, yet one needed only to look at these men in order to realize at once that there were repercussions of the anxiety in every cell and tissue of the body. Often there was chalklike pallor, trembling, violent

drugs, possibly activated by that contempt of danger which is bred by familiarity. Thus both directly and indirectly, occupation may create a predisposition which cannot be ignored.

Previous Attack As in many instances in the practice of other specialties of medicine, so too, in psychiatry, one attack may increase the likelihood of subsequent attacks. The various diseases of childhood, smallpox (vaccination), shingles, etc., confer an immunity, but other diseases, as of the heart, apoplectic strokes and many respiratory morbidities render the patient more susceptible to future attacks. There are not many immunities in the field of psychiatry, but they do occur, for instance, in some thoroughly and skillfully treated psychoneurotic patients. More likely, notably in manic depressive psychoses, one attack sets into motion a mechanism which strongly favors recurrences.

Here, then, are the chief factors of predisposition. They are important. Their careful consideration in each patient is often repaid by valuable suggestions pertaining to etiology, diagnosis and treatment.

A study of the list suggests that no human being can escape completely all predisposition to mental disease. This is true. However, in the majority of instances, the predisposition is not strong enough to shatter the resistance.

It should be emphasized that no matter how marked may be the predisposition even if there can be some degree of indictment for every count on the list, predisposition does not produce the mental illness. It is first necessary for the person who has been "softened," or prepared, to come into contact with an exciting cause. The exciting cause is the dynamic force which sets into motion those psychosomatic mechanisms which bring the symptoms into expression.

EXCITING CAUSES

The exciting causes of mental disease are either preponderantly somatic or preponderantly psychic or emotional. The word "preponderantly" must be emphasized, since it is fundamental that one realize that the causes cannot be solely either physical or emotional in their operation. This would be contrary to the now commonly accepted axiom that man in his functioning is an indivisible unit and not a combination of parts strung together loosely.

Nevertheless, the brunt of the impacts of exciting causes falls variously upon one level or another. The appreciation of the nature and the quality of the exciting causes will be assisted by the consideration of a few of the functioning levels.

infection in the etiology of psychiatry. It is extremely dubious whether there is ever a causal relationship between focal infection and psychotic or psychoneurotic symptoms. Nevertheless, it is good medicine, good psychiatry and good sense to clear the patient of focal infection as far as possible.

Exhaustion, in etiology, plays a restricted but important role. As modern life is arranged, one may scarcely expect exhaustion of central nerve tissues and cells due to muscular effort. Perhaps a polar explorer might, through exposure, deprivation and hardship, become nervously exhausted, but even in such situations, there is scarcely produced the cloudy swelling and degeneration of cortical cells, such as may occur in the brain of a dog exhausted on a treadmill. There may be considerable deprivation of nerve tissues and serious mental symptoms as a result of long and debilitating infectious diseases. I have seen several such instances in enteric fever. Something akin to exhaustion, too, may be the aftermath of long-continued emotional wear and tear due to severe emotional conflicts. During the recent war and notably in the battle areas, there were many psychiatric reactions in which physical depletion and fatigue were prominent factors in the clinical pictures. They were variously designated as "combat fatigue," "combat exhaustion," "operational fatigue," etc.

Exogenous Intoxications. Here are included a large group of industrial occupational poisons, the socially acceptable narcotic, alcohol, many narcotic and habit-forming drugs, many so called "harmless" medicines like the bromides. Particular mention should be made of benzedrine and the barbiturates which are used so widely and indiscriminately that they constitute a menace to our national health and mental stability. All these exogenous poisons may be, and frequently are, etiologically directly significant in the development of mental symptoms.

Endogenous Intoxications. Here are included many morbidities in which the intoxication is endogenous. This group has been indicated in the consideration of the exciting causes of fever and toxicity. There is introduced the particular effect of the infection which is present: pneumonia, influenza, acute rheumatism, enteric fever, encephalitis, poliomyelitis, bloodstream infections and, in fact, all the acute infections of adult life and childhood. Naturally, the particular infectious disease does not impress a distinctive mark so far as the mental symptoms are concerned. Designations like "influenzal psychoses," "rheumatic psychoses" and the like are misleading and should not be employed.

The conception of endogenous intoxications brings up, in a

pulsations of the vessels of the neck rapid, shallow breathing, etc

In the light of these preliminary statements, it is not difficult to understand the operation of the following partial list of exciting causes

Preponderantly Physical

Fever, infection, exhaustion	
Intoxication (exogenous)	} Acute
Intoxication (endogenous) (metabolic imbalances)	
Chronic toxicity	
Chronic cerebral and gross nervous disease	
Trauma	
Insolation	

Preponderantly Psychic (Emotional)

This group includes a large variety of life situations, experiences and conflicts eventuating chiefly in considerable anxiety

CONSIDERATION OF PREPONDERANTLY PHYSICAL EXCITING CAUSES

Fever, Infection and Exhaustion While it is possible to induce a clouding of consciousness and the mental symptoms of delirium by raising the body temperature by a 'fever machine,' yet for practical purposes it is profitable to consider together fever, infection and exhaustion. Here is a triad of exciting forces which are prolific of mental symptoms. It is a common and casual happening of everyday practice to have a simple pneumonia, influenza, a streptococcal infection and a host of other acute morbidities, by the action of rising fever and increased toxicity, suddenly manifest psychiatric complications, usually deliria. These mental symptoms, for a time, overshadow the physical symptoms and imperatively demand treatment.

In regard to toxicity, and particularly in the consideration of fever, there must be taken into account the marked personal variation as to the temperature level at which mental symptoms appear. I have known patients who became mildly delirious with a fever of less than 100° F. On the other hand, many human beings retain a relative mental integrity at much higher temperatures.

A particular subdivision of infection is focal infection. My feeling is that this is a fair statement concerning the role of focal

broad sense, the role of disturbed metabolism in eliciting mental symptoms. Not only satisfactory physical functioning but also the maintenance of mental stability depends upon the maintenance of a relatively even balance between anabolic and katabolic processes from which the central nervous system derives its support. Therefore, in the endogenous intoxications and, indeed, in every sickness, acute or chronic, in the last analysis it is the decided metabolic shift that disturbs normal mental functioning. In connection with metabolic imbalance one thinks of the endocrine apparatus, perhaps particularly in psychiatry. In one sense the glands of internal secretion are the connecting links between the emotions and their physical expression patterns. When they themselves are disturbed in their functions, not only striking somatic phenomena but also definite alterations of mental functioning occur. In Graves' disease, in myxedema, in Addison's disease, in failure or serious diminution of the ovarian secretion, in plus or minus pituitary syndromes and in many other ductless gland disorders, there is a striking component of mental symptoms in the clinical pictures. Sometimes, as in cretins, or even in adult myxedema, the intelligence is at a very low level of activity and is revived and revitalized by thyroid therapy. Conversely, in some psychoses, notably schizophrenia, there is a wealth of endocrine symptomatology, often substantiated by functional tests such as the basal metabolism.

Chronic Toxicity. Chronic toxicity is given a separate etiologic listing principally because of the psychiatric significance of lues. It is the determining symbol in the formulae for paresis and other psychoses of luetic origin. In lesser degrees, tuberculosis, arthritis, gout, primary anemia, diabetes, etc., by reason of the chronic toxic states they produce plus the curtailment of the interests and the activities of the patient, result in considerable deviation from normal mentality.

Chronic Cerebral and Gross Nervous Disease. Here are included a group of etiologic factors which act chiefly by their impact on the brain and by the disarrangement and the degeneration of central nervous tissue cells and vessels. Huntington's chorea (hereditarily tainted), multiple sclerosis, paralysis agitans, brain tumor and abscess, vascular hemorrhage, thrombus and embolus and many other conditions.

Trauma. While head trauma is rarely productive of definite psychosis, yet it does have important psychiatric implications. Sometimes in adults pronounced dispositional changes occur in the

wake of head injury, and in children it is second only to encephalitis epidemica in conditioning extreme abnormalities of behavior

Insolation. Traditionally and perhaps because, in those who are seriously predisposed, sunstroke may initiate long periods of instability of both the bodily heat apparatus and the emotions, it has been included among the exciting causes

CONSIDERATION OF PREPONDERANTLY PSYCHIC CAUSES

The "physical" exciting causes of mental diseases have the virtue of being concrete and demonstrable. After all, there is considerable scientific satisfaction in being able to observe a positive reaction and a "steppage" gold curve in the blood serum and the spinal fluid of a paretic patient during life and the spirochete in a section of brain tissue after death, to note on the clinical thermometer a temperature reading 104.5°F in a patient who has suddenly become delirious, to read in the laboratory reactions of the blood chemistry the reasons for the sudden onset of severe mental symptoms in kidney, diabetic and other conditions, or by the discovery of a large concentration of bromides in the blood to find the explanation of a puzzling psychosis, to find in a basal metabolism of plus 50 or more the answer to a mercurial emotional state suggesting acute mania but actually related to hyperthyroidism. Nevertheless, satisfying as it is to see and touch etiology, yet, all in all, it is true that those "causes" which are not physical but chiefly psychic or emotional in their impact against the human personality are the more dynamic, motivating and damaging.

EMOTIONS AND THEIR IMPORTANCE

The human emotions are literally the heart of the mind. They are as necessary and significant to the personality for a reasonably satisfactory maintenance of mental functioning as is the physical heart to the body for the continuance of normal somatic performance. Should the heart cease to function, there is physical death, should the emotions "stop," as in profound senile and other deteriorations, then the mind dies.

Although the emotions are very archaic, antedating the acquisition of intelligence by many counts of evolutionary history, yet we know comparatively little about them. They are scarcely tangible enough to be tested accurately. Love or hate or depression cannot be seen and can be measured and weighed only inexactly. Never-

theless, even ordinary observation makes obvious the enormous power of the emotions and their far reaching repercussions in the body and in the personality.

The emotions are too far reaching, too important, too dynamic, and too fluid to be confined within a cage of words. It is not too much to say that they are almost life itself. Emotions activate and energize behavior. They express our ideas. By their resiliency and almost infinite variation they vivify and beautify life and create the very joy of living. However highly we may vaunt our evolution and civilization, it is undoubtedly true that we are fundamentally living by virtue of our emotions. The painting of a masterpiece, the conversion of a block of marble into a figure of enduring beauty, the writing of a great novel, in fact almost every great achievement in the arts is emotionally and not intellectually inspired. Large and small decisions are frequently made on an emotional level, even though the individual may not be aware of the impelling force which has actuated the "making up" of his mind. The meaner affairs and incidents of life likewise hinge more on *feeling* than on *thinking*.

To a large extent everything, in the last analysis, depends on the direction in which the emotions exert their pull. The mass of the people is particularly prone to act this way. Revolutions are awakened, bloody and costly wars are fought, potent historical documents are brought into existence, kings and queens lose their crowns and their heads, ordinary men are elevated to high places in response to the electrical current of feeling which sweeps through the mob. It is true that so called intellectuals may use the mob as the chess expert moves his pawns, but seldom do they succeed in retaining the direction and mastery. Furthermore, they themselves are apt to find their strength in emotionally conditioned thoughts and behavior.

A civilization resting on a purely intellectual foundation would be almost inconceivable, it would be pallid and anemic, weak and ineffectual. Great mistakes might not be made, but notable progress would be wanting.

It is clear that the emotions constitute a remarkable force both for good and evil. The conduct which they motivate in the affairs of nations and in the daily life of every man and woman may be beneficial or dangerous. In one instance, a nation may be brought to decline and chaos, in the other, a mind may be swept from its moorings. Whenever a force is so gigantic and awful in its potentialities, it should be surrounded by protective barriers and subjected to inhibiting criteria. The only available criterion is the check of the intellectual mind. In other words, human conduct must not only be determined by feeling but it must also be guided by thinking derived from self understanding. The moral is simply to "look before you leap," or think before you act. The only solution is to restrain, at least partly, impulsive behavior. This is not easy, in fact, it is extraordinarily difficult. Sometimes the emotions spur us on so strongly

and so rapidly that they do not give us time to think, and the feeling which often prompts the act is not accessible to conscious analysis. Nevertheless, effort forms habit. Honest striving will eventually make us, at least in some degree, the masters of what we do, instead of the slaves of unadulterated emotion. If every individual could succeed in modifying behavior by thought in a proportion of twenty five per centum, human progress and happiness would be immeasurably enhanced and human misery notably lessened *

THE EMOTIONS IN PSYCHIATRY

We have enough information about the human emotions to permit us to state a few principles which have psychiatric application

1 Emotional reactions, even when they are so slight that they merely constitute feeling tones, always have a definite physical expression pattern, the somatic profile of the emotion

2 The physical emotional expression tends to continue the emotion. If the emotion is strongly moving or "sthenic," as for instance, rage or fear, then the emotion is intensified. Its somatic pattern in turn becomes more marked, and there is set into revolution a vicious somatopsychic circle which continues until the mechanism has run down

3 Mentally, human beings seem to withstand strong emotional shocks relatively well but they are mentally vulnerable to less drastic but long enduring emotional drains

4 Important brain investigations at a neurophysiologic level, particularly in the thalamic and the subthalamic areas, are being pursued vigorously. Here are definite links in the expressions of emotional life. Beginning at two ends—one the psychic emotional, the other the tissue structural—extensions are being built which, when they are joined, will bridge the gap between the emotions and their profiling by the body

The human psyche is not an area of harmony. It is a veritable battleground of conflicting drives and trends. Basically, these are derived from the respective claims of the dynamic instincts, like self-preservation, sex, and the "herd" or socializing motif. Usually, their respective demands are in conflict with each other and, often, they are irreconcilable. The friction of emotional conflict cannot be continued overlong. It cannot remain in statu quo.

In a finely adjusted piece of machinery, grinding between its

* Strecker, Edward A., and Appel, Kenneth E. *Discovering Ourselves*, New York, Macmillan

running parts would soon rack the machine to pieces. So, too, in the infinitely more delicate human personality, the friction of emotional cross purposes must be relieved or compromised, even if the compromise is pathologic. So, unconsciously, did a young nurse develop a hysterical palsy of the right arm when ordered to remove a large bloody sponge from the operating room floor, so, too, did numerous "shell shocked" soldiers in World War I suffer hysterical loss of sight or hearing or smell * as a protection against the horrible sights and sounds of the battlefield or the revolting odors of bodies of soldiers unavoidably left unburied for many days.

In civil life, also, there are numerous anxiety and neurasthenic syndromes, perhaps gastro intestinal (headache, backache, vertigo, nausea, vomiting, etc.), often they are pathologic solutions of an emotional conflict, as in a married woman, the conflict between fear and revulsion toward the sexual act and her sense of duty toward her husband and her love for her children.

The basic patterns of emotional conflicts are repeated endlessly. They are woven of disappointments, rejections and deprivations in the love life, of marital difficulties, of family disgrace, of failure to fulfill personal ambitions, of shaming belittlements and inferiorities and economic reverses. These and many other life situations tend to eventuate in anxiety which, when long continued, takes a heavy toll of the mental resistance and often disrupts the personality. Often the beginnings of these patterns and the inability to stand up against the frustrations of adult life may be traced back to childhood.

Severe and recent emotional traumata occur with considerable frequency in the clinical experience of psychiatrists and, all in all, are regarded too lightly. Recently, I saw a middle aged man who was depressed and showed considerable retardation. Overworked and fatigued and plagued with financial worries, he developed a severe sinus infection. Following the treatment of this ailment at a Western clinic, his business reputation was impaired seriously by the spreading of a rumor that he had become addicted to a narcotic drug. Upon examination, one of his children, who was not getting on in school, was found to be feeble minded. His wife had been unfaithful to him, and he learned that he was not the father of one of the children.

The experiences of the World War II emphasized the significance

* These and many other functional protective symptoms represented pathologic compromises of the conflict between the insistence of the instinct of self preservation and the opposing claims arising from the ideals of military behavior and service.

of severe and recent emotional stresses. It was not an uncommon experience for a young combat pilot to find his co pilot and "buddy" suddenly slumped in death at his side or for half the crew to be trapped in a burning plane with their dead and dying companions. A young sailor trapped in the boiler compartment of a sinking ship not only kept afloat but managed to keep another man above the water line, watching eighteen other men perish. Naturally, he sustained a psychiatric casualty, but he recovered rapidly. Such severe emotional insults to the ego, both in military and civilian life, need to be more carefully analyzed and evaluated. It is not unlikely that there are extrinsic situations so severe in their brutal impact that they can shatter the resistances of even a sound and flexible personality. They are highly important in etiology, diagnosis, prognosis and treatment.

THE COMPLEXITY OF ETIOLOGIC FACTORS

Psychiatry discourages too literal an interpretation of "causes," as though their identification constitutes a fait accompli so far as this or that psychosis or psychoneurosis is concerned. Knowledge of etiology never can be as complete as such a literal interpretation would suggest. For instance, lues is indubitably the cause of paresis. On the other hand, lues does not explain the wide diversity of clinical psychotic reactions presenting in parietic patients. Neither does it make clear why only a relatively small percentage of human beings who become infected by lues subsequently develop paresis. In both internal medicine and psychiatry, the etiologic doors must be left wide open. Perhaps this is best accomplished by viewing the facts of etiology in a broad and even philosophical perspective.

In teaching, I have utilized the following hypothesis. At birth each individual is provided with a zone of defense against the development of mental disease. The amount or the thickness of this zone of resistance varies by reason of the assets and the liabilities derived from inheritance. From the instant of birth the amount of resistance against mental illness is never static. Its amount constantly changes, increases or decreases according to the experiences in life, somatic and emotional, and the reaction of the total personality to these experiences. Should these experiences be very severe or should destructive happenings follow each other in close sequence, then there is grave danger that the wall of resistance may become perilously weak, so that a trivial untoward circumstance may seem to precipitate a major or minor psychosis.

The important aspect of Meyer's psychobiology is the sound

understanding and application of this principle as visualized in Figure 3 Psychobiology carefully views the "long section" of the life picture. It notes, perhaps, that the patient was born in diffi-

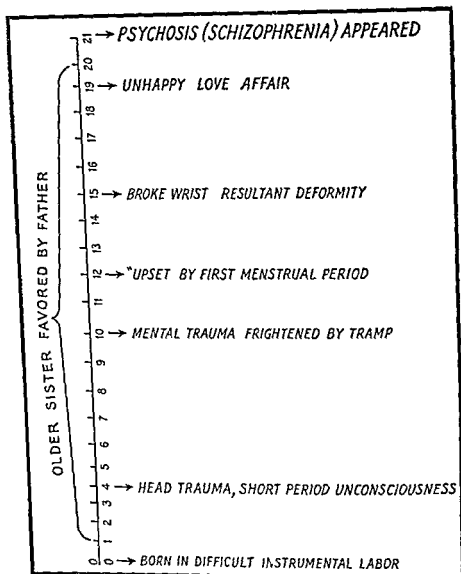


FIG 3 Diagrammatic history of a case of schizophrenia

cult instrumental labor, that there was head trauma at the age of four, that the patient's father "favored an older child that at the age of ten she was frightened by a tramp who exposed his sexual organs to her that at the age of twelve she was "upset by her first menstrual period for which she had not been prepared, that at fifteen she broke her wrist and it was badly set and left a deformity, that at nineteen she had a very unhappy love experi

ence; and so on. It not only notes these and other occurrences of the life history but also makes an estimate of their significance in producing a psychotic or psychoneurotic maladjustment. Finally, it derives from them valuable therapeutic indications. This is etiology in a truly broad and dynamic sense.

Classification of Mental Diseases

IMPORTANCE OF CLASSIFICATION

Two of the outstanding events in the evolutionary history of man were the acquisition of mentation, or thinking, and an even more momentous occasion when thinking became articulate and human beings, in primitive fashion, were able to converse with each other for the first time. At that instant when our primitive ancestors were able to name things to each other, there was sounded the death knell of the mammoth, the saber-toothed tiger and the other prehistoric monsters who roamed the surface of the earth or swam in the seas and threatened the extinction of man. Once able to name their enemies to each other around the council fires, primitive men could plan to protect themselves, and there appeared on the wall the handwriting which forecast the supremacy of man.

'Naming, or classification, is the basis of all science, indeed of all human knowledge. Without classification, knowledge would remain sterile. It could not be increased. Without an index by name of the items of hard won information, there would not be a starting point for further investigation.

In a scientific discipline such as psychiatry, any addition to a rational classification represents much hard work and effort. Therefore, a name given to a psychosis or a psychoneurosis is not merely an inanimate word. 'Names are things, they certainly are influences—impressions are left and opinions are shaped by them.'

Of necessity, in medicine and psychiatry alike, nosology must be inexact and incomplete. In psychiatry, while the body of information is considerable, still it is uneven. For instance, we are very exactly informed about paresis—its etiology, gross and microscopic pathology, symptoms, diagnosis and treatment. Comparatively, we know much less about schizophrenia. Yet both psychoses must be included in any classification.

ORGANIC, TOXIC OR FUNCTIONAL DISEASES

Perhaps the simpler the classification, the more practical it is. It is suggested that after a patient with mental or psychoneurotic symptoms has been studied as thoroughly as possible, the physician put to himself these three questions: Is the condition organic? Is it toxic? Is it functional?

1 An organic psychosis is one in which the major etiologic factor is structural pathology of brain tissues and vessels. Paresis and senile psychoses are outstanding examples.

2 A toxic psychosis is one in which the psychotic determining toxicity is due largely either to exogenous or endogenous intoxication. There are many examples in each group, for instance, the alcoholic psychoses and the delirium of pneumonia or the mental symptoms of pellagra.

3 A functional psychosis or psychoneurosis is one in which a sufficient amount of pathology or toxicity to explain the reaction cannot be discovered. The best examples are to be found among the psychoneuroses: hysteria, anxiety and neurasthenic syndromes, obsessive and compulsive reactions.

This simple division into organic, toxic or functional constitutes a helpful and workable classification. It restricts the number of etiologic and diagnostic choices and furnishes valuable guides to treatment.

In practice the distinction between organic, toxic and functional must not be too rigid. Organic symptoms may appear in the toxic psychoses and vice versa. So, too, there may be an underlying layer of either organic or toxic causative factors in the functional reactions. Frequently, in even very severe organic deteriorations, symptoms appear which obviously are due to the intrusion of the previous personality and not to the brain damage. For instance, a very old spinster I know, whose memory and other mental functions are well nigh annihilated by senile brain pathology, always carries a pillow in her arms and "nurses" it tenderly. It represents the unfulfilled desire to have a baby.

In one sense, the designation "functional" is a confession of incomplete information. Unquestionably, some of the reactions that are now regarded as functional in the light of future investigations and more refined technics of examination will be revealed at least partially, as organic or toxic reactions. However, "functional" in the sense of disordered somatic function, in the absence of sufficiently explanatory structural pathology, and the more narrowly "psychic"

phenomena, as in obsessive and compulsive reactions, will always occupy a large area in psychiatry

While the very brief classification of organic, toxic and functional is quite helpful in correctly shaping etiologic, diagnostic and therapeutic thinking, yet, of course, classification must go beyond this starting point

A long time ago someone wrote "To define true madness, what is it but to be nothing else but mad?" This would scarcely be true in this modern day of psychiatry. There are many different forms of mental diseases, varying markedly in their causation and clinical expressions and calling for decidedly different types of treatment. The American Psychiatric Association classification, still widely used, is reproduced in the following pages. It is unlikely that the classification list itself will survive, at least not without extensive modifications

AMERICAN CLASSIFICATION OF MENTAL DISORDERS

- A Psychoses due to or associated with infection
 - 1 Psychoses with syphilitic meningoencephalitis (general paresis)
 - 2 Psychoses with meningovascular lues (cerebral syphilis)
 - 3 Psychoses with intracranial gumma
 - 4 Other types (to be specified)
 - 5 Psychoses with epidemic encephalitis
 - 6 Psychoses with tuberculous meningitis
 - 7 Psychoses with meningitis (unspecified)
 - 8 Psychoses with acute chorea (Sydenham's)
 - 9 Psychoses with other infectious diseases
 - 10 Postinfectious psychoses (infection to be specified)
- B Psychoses due to intoxication
 - 1 Psychoses due to alcohol
 - 2 Pathologic intoxication
 - 3 Delirium tremens
 - 4 Korsakoff's psychosis
 - 5 Acute hallucinosis
 - 6 Other types (to be specified)
 - 7 Psychoses due to drugs or other exogenous toxins
 - a Psychoses due to metals
 - b Psychoses due to gases
 - c Psychoses due to opium and its derivatives
 - d Psychoses due to other drugs
- C Psychoses due to trauma (traumatic psychoses)
 - 1 Traumatic delirium
 - 2 Posttraumatic personality disorders (traumatic constitution)
 - 3 Posttraumatic mental deterioration
 - 4 Other types (to be specified)

- D Psychoses due to disturbance of circulation
 - 1. Psychoses with cerebral embolism
 - 2. Psychoses with cerebral arteriosclerosis
 - 3. Psychoses with cardiorenal disease
 - 4. Other types (to be specified)
- E Psychoses due to convulsive disorders (epilepsy)
 - 1. Epileptic deterioration
 - 2. Epileptic clouded states
 - 3. Other epileptic types
- F. Psychoses due to disturbances of metabolism, growth, nutrition, or endocrine function
 - 1. Senile psychoses
 - a Simple deterioration
 - b Presbyophrenic type
 - c Delirious and confused types
 - d Depressed and agitated types
 - e Paranoid types
 - 2 Alzheimer's disease (presenile type)
 - 3 Involution psychoses
 - a Melancholia
 - b Paranoid types
 - c. Other types (to be specified)
 - 4 Psychoses with diseases of the endocrine glands (to be specified)
 - 5 Exhaustion delirium
 - 6 Psychoses with pellagra
 - 7 Psychoses with some other somatic disease (to be specified)
- G Psychoses due to new growth
 - 1 Psychoses with intracranial neoplasms
 - 2 Psychoses with other neoplasms
- H Psychoses due to unknown or hereditary causes but associated with organic changes
- I Disorders of psychogenic origin or without clearly defined tangible cause or structural change
 - 1 Psychoneuroses (neuroses)
 - a Hysteria
 - (1) Anxiety hysteria
 - (2) Conversion hysteria
 - b Psychasthenia or compulsive states
 - c Neurasthenia
 - d Hypochondriasis
 - e Reactive depression
 - f Anxiety state
 - 2 Manic depressive psychoses
 - a Manic type with elevation of spirits (elation) or irritability, with overtalkativeness, flight of ideas, and increased motor activity

- b Depressive type with outstanding depression of spirits and mental and motor retardation and inhibition
- c Circular type
- d Mixed type
- e Perplexed type
- f Stuporous type
- g Other types
- 3 Dementia precox (schizophrenic reaction types)
 - a Simple type
 - b Hebephrenic type
 - c Catatonic type
 - d Paranoid type
 - e Other types
- 4 Paranoia paranoid conditions
- 5 Psychoses with psychopathic personality
- 6 Psychoses with mental deficiency
- J Undiagnosed psychoses
- K Without psychosis
- L Primary behavior disorders

Since many physicians feel that this classification has been useful in giving them a diagnostic orientation concerning the salient aspects of various psychiatric conditions, the author includes certain explanatory comments

THE SOURCES OF PSYCHOSES

1. **Traumatic Psychoses.** Psychoses actually due to head trauma are rare, even in war. Mental and nervous disorders following head injury may be revealed as *traumatic delirium*, an acute or protracted delirium, *traumatic constitution* involving such symptoms as headache, fatigability, irritability, emotional instability and sometimes severe and serious dispositional changes, and *hysteroid, paranoid* and *epileptoid* phenomena may occur. Traumatic dementia,* if it ensues, may be very profound and may be accompanied by aphasia and epilepsy. Traumatic neuroses might justifiably be classed under the psychoneuroses and neuroses. They are included here, since, unlike many of the other neuroses, they have in common the element of trauma. It is an unsatisfactory grouping, and the relationship between the symptoms and the trauma is a constant topic of legal dispute. Expert testimony is enlisted on one side and the other and, generally speaking, the record does not adorn psychiatry.

* Here and elsewhere in this book, dementia is used in the sense of a permanent loss or severe diminution of important mental functions.

One of the major difficulties is the wide range of trauma, from serious to trivial, from a compression vertebral fracture due to the impact of a huge lump of coal in a mine accident to a brush burn or a "muscle twist" in a traffic accident. The functional symptoms are by no means in proportion to the gravity of the trauma and, frequently in the wake of insignificant injuries, the train of symptoms is longer and they are seemingly more severe than those following very severe injuries. Furthermore, the scale of what might be called conscious participation in the symptoms is very wide. At one end, there is no question as to the unconscious nature of the mechanism which brought the symptoms into existence. Farther down the scale one begins to suspect conscious participation perhaps, stimulated by unscrupulous legal advisors and perhaps medical coaching and advice. At the lower end of the scale there is obvious malingering.

It has been mentioned that the severity of behavior disorders following head trauma in children is second only to those of encephalitis. There may be lying, stealing, setting fires, sexual assaults, homicidal attacks, etc. Treatment involves a long period of persistent and impersonal reeducation, usually in a setting detached from the home environment.

2. Senile Psychoses. Here is a large and important group of psychoses in which the major segment of the symptomatology is conditioned by senile pathologic brain alterations involving volume, cells, reduced blood supply due to arteriosclerosis with consequent destruction of brain areas which have extremely important mental functions, and the presence of dark-staining fibrillarlike bundles called "senile plaques" which are said to occur only in man.

The cardinal symptom of the senile psychoses is the rapidly progressive failure of recent memory, sometimes dropping to the nadir of complete abolition. Early and during part of the course of these psychoses, the recent memory failure is in striking contrast with the relatively good retention of remote memory; accordingly, the patient may give an amazingly accurate account of childhood happenings and yet in five minutes forget that he has had his dinner. Influenced in large measure by the intrusion of the prepsychotic personality into the psychosis, there are various types of senile psychoses: *simple dementia*, *delirious* and *confused* types; *depressed* and *agitated* types; *paranoid* types, and *presbyophrenia*. Minute clinical distinctions are not highly important.

Deep and irreplaceable mental loss may occur in the presenile dementias (Alzheimer's disease, Pick's disease, and others) quite

early in life, at 40 or even earlier. The microscopic pathology and sometimes even roentgen ray findings are distinctive.

3. **Psychoses with Cerebral Arteriosclerosis.** Unless the psychotic symptoms occur at an age span earlier than senility, then the clinical distinction from the senile psychoses may be difficult during life. The usual considerable margin of error will be much reduced if the clinician is chary of making a diagnosis of psychosis with cerebral arteriosclerosis unless there are general (headache, vertigo, fainting, etc.) and focal (transient aphasia, pareses, sensory disturbances, etc.) symptoms of brain damage.

4. **Paresis.** More authentic information has been amassed concerning paresis than any other psychosis. The serology alone is so diagnostically decisive that in an untreated case the diagnosis may be made in the laboratory without seeing the patient. In addition, the neurology of paresis is often very helpful. The psychotic segment outline, while prominent, is the least clear diagnostic feature of the clinical picture and may be quite misleading. According to the placing of the clinical emphasis, the psychotic expression has led to the recognition of the following clinical types of paresis: *expansive* or *grandiose*, *depressive*, *manic* or *agitated*, and *dementing*.

5. **Psychoses Due to Cerebral Lesions of All Types, Huntington's Chorea, Brain Tumor and Other Brain and Nervous Diseases.** For all of these there is a wealth of mental symptoms which are comparatively nonspecific in character and, all in all, they are much less distinguishing than the physical, neurologic and laboratory findings.

6. **Alcoholic Psychoses.** The history of alcohol, which is always a narcotic, is coextensive with the history of the human race. Its persistence in the social scheme is explained by the fact that it has the quality of softly and rosily blurring and even erasing the hard outlines of the unsatisfactory, grim and forbidding realities of everyday life.

In excessive amounts alcohol is an exogenous poison very destructive to the body, including the brain, and to the personality.

A number of well defined clinical entities* may be recognized: *pathologic intoxication*, *delirium tremens*, *acute and chronic alcoholic hallucinosis*, *alcoholic Korsakoff's syndrome*, *alcoholic acute and chronic paranoid types*, *alcoholic dementia*.

* Scientific investigations, particularly in the field of the vitamins, tend to show that selective vitamin deprivations are fundamentally significant, but alcoholism often provides the favorable setting for the occurrence of delirium tremens, Korsakoff's syndrome, etc.

7. Psychoses Due to Exogenous, Industrial and Other Poisons and to Drugs. This group has been much increased by the expansion of industries which are basically in the realms of physics and chemistry, by recent research that has produced more and more lethal atomic weapons, and, hopefully, by the application of atomic energy for the benefit of mankind, by the speeding up of the increasing war industries and by the identification of the toxicity of many so-called "harmless" drugs and proprietary substances

In these exogenous psychoses the clinical pattern particularly involves disturbances of consciousness

8. Psychoses with Pellagra. These are separately classified partly because of geographic distribution but chiefly because they stand out as psychotic reactions on the basis of vitamin deprivation. Brilliant achievements in the field of vitamin chemistry and in the ensuing therapies have practically abolished the four diagnostic D's (diarrhea, dermatitis, dementia and death) of little more than a decade ago.

9. Psychoses with Somatic Disease. Here, from the standpoint of psychoses, is the common meeting place of internal medicine and psychiatry, as psychosomatic medicine is the meeting place as far as functional illness is concerned

As in the psychoses of exogenous derivation, the clinical pattern presents varying degrees of disturbances of consciousness. In addition, there are the distinctive clinical markings of the somatic disease which is present

10. Manic-depressive Psychoses. In spite of the progress which has been made in identifying hereditary and constitutional factors, it seems advisable to defer removing manic depressive from the functional group

Perhaps the clinical syndromes may be understood more readily by considering the effect of the psychosis upon the functions of emotional expression, ideational and motor activity. These functions in the manic phases are, or seem to be, increased in activity far beyond the normal range with a rapidly shifting, mercurial emotional state, seemingly at the mercy of external and internal stimuli, the ideational activity and its vocal accompaniment is likewise uncontrolled with distractibility and "flight of ideas", motor activity is unrestrained and readily goes over into violence and destructiveness. Conversely, in the depressive phases, usually occurring in the same patient, there is apt to be a dead level of emotional depression, often with self blame and suicidal trends. There is present ideational and vocal retardation, sometimes to the point of mutism, and motor retardation, which may amount to stupor.

Manic depressive psychosis is sometimes spoken of as "benign," since the patient is likely to "recover" from each episode or cycle. However, there is a decided tendency to recurrence, and in "malignant" manic depressive psychosis there is practically no cessation of symptoms, one phase following the other with little or no quiescent intervals ("circular insanity")

Practically, there are as many levels of severity of both phases as there are patients who have the psychosis. However, the grada-

<i>E</i>	<i>I</i>	<i>M</i>	
<i>E</i>	<i>I</i>	<i>M</i>	hyperacute ("delirious") mania
<i>E</i>	<i>I</i>	<i>M</i>	acute mania
			hypomania
HYPOTHETICAL NORMAL LEVEL OF EMOTIONS, IDEATION, MOTOR ACTIVITY			
<i>E</i>	<i>I</i>	<i>M</i>	
<i>E</i>	<i>I</i>	<i>M</i>	simple retardation
<i>E</i>	<i>I</i>	<i>M</i>	acute depression
			stuporous depression

FIG 4 Ascending and descending scale of manic depressive activity

tions in Figure 4 may be distinguished fairly frequently. Their severity is indicated by the distance from the hypothetical normal line, the symbols *E*, *I* and *M* indicate respectively Emotions, Ideation, Motor

There are innumerable levels of overactivity and underactivity and also a great variety of patterns of the psychosis. A few of the possibilities are illustrated in Figure 5

11. *Involucional Melancholia*. If there have not been previous attacks of manic depressive, if the psychosis occurs within the range of the climacteric span and if it shows the clinical expression of involucional melancholia (depression, poverty of ideas, although occasionally there is a rich delusional content), replacing of the retardation of the usual depressive phase of manic-depressive by marked motor agitation, then probably it is true involucional melancholia and close kin to manic-depressive psychosis

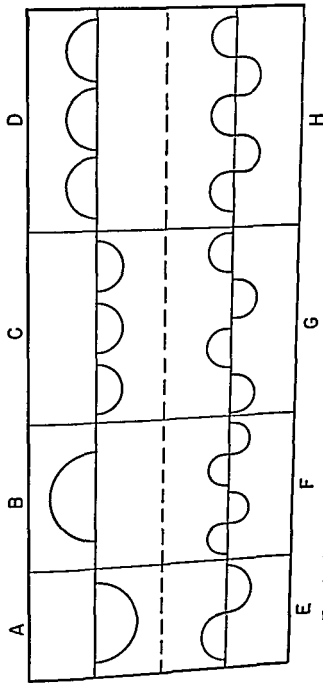


FIG 5 There are innumerable levels of overactivity and underactivity and also a great variety of patterns of the psychosis (A) single depressive phase, (B) single manic phase, (C) depressed phases with quiescent intervals, (D) manic phases with quiescent intervals, (E) a complete cycle manic and depression, (F) two cycles separated by quiescent periods, (G) "up" and "down" phases, each one followed by quiescent periods, (H) continuous, i.e., phases of mania and depression without quiescent intervals, so called circular insanity

slowly boiled to death") the external emotional expression consists of silly simpering.

Schizophrenia has the highest incidence of all the psychoses.

Certain clinical varieties are described. These subdivisions are a remnant of that era in psychiatry when there was a passion for hair-splitting classification. However, the four remaining groups, *simple*, *hebephrenic*, *katatonic*, and *paranoid*, have a certain amount of clinical usefulness.

13. Paranoia. Paranoia is so rare that in a lifetime of practice, a psychiatrist may not hope to see more than a dozen instances. It consists of the exceedingly gradual and furtive development of delusions of persecution. While, of course, the delusional conclusion is erroneous, yet the premises upon which the delusion rests are carefully interlocked and, in themselves, quite logical.

PARANOID CONDITIONS. Paranoid conditions bear a resemblance to true paranoia, but, as the mental symptoms continue, they fail to meet the requirements of true paranoia, usually because of some clinical evidence of hallucinosis or of deterioration. True paranoiacs never hallucinate; neither do their mental powers become disorganized.

One must not be misled by the adjective "paranoid." It is used to describe any persecutory idea, no matter how fleeting it might be (as in delirium or acute mania) or even to indicate fairly common and passing attitudes of mild suspicion and distrust. This may appear in personalities not definitely psychotic.

14. Epileptic Psychoses. This diagnosis should be restricted to definite mental symptoms occurring in patients who have a history of convulsive seizures of the epileptic grand mal or petit mal types or psychomotor epilepsy in which inappropriate acts from time to time are performed in purposeful fashion. One patient scrubbed a clean floor with paint. These patients are amnesic for their behavior.

The diagnostic study should seek to be exclusive in order to prevent the inclusion of convulsions of reflex and irritative character; convulsions due to exogenous intoxication as in alcoholism; convulsions of endogenous toxic origin as in uremia; convulsions occurring in certain psychoses, as in paresis; convulsions due to intracranial pathology, such as brain tumor, either from general pressure or focal pressure as in a motor area; and convulsive seizures of functional disease as in hysteria which occasionally are very deceptive, etc.

Psychiatry is interested in the personality of the epileptic and in the various "equivalents" of the convulsion: *epileptic dream* or

twilight states, delirious confusion with hallucinations and somatic delusions, transitory states of depression and excitement, paranoid states, epileptic furor, epileptic fugue states and epileptic dementia

15 Psychoneuroses and Neuroses Here is the main functional territory of psychiatry. While these reactions are not accessible to statistical accounting yet it is clear that the problem has enormous proportions. Some authorities regard the psychoneuroses as the most serious disease threat of modern civilization.

Various classifications of psychoneuroses have been advanced. The less complicated the classification the better. The following has the virtue of simplicity: *conversion hysteria, neurasthenic and anxiety reactions, obsessive compulsive reactions*.

In practically every instance of psychoneurosis the damaging effect of the environment must be considered. When environmental factors are severe and significant and are reflected definitely in the symptoms then the designation 'psychoneurosis, reactive' is justified.

16 Psychoses with Psychopathic Personality Constitutional psychopathic personality, in my opinion, is a defect rather than a pathologic alteration. The defect is as concrete as that of the feeble minded person. It does not involve the intelligence per se, and psychopathic inferiors are likely to have average intelligence and many have an I.Q. that is above the average, sometimes amounting to genius. The defect is much more serious and involves emotional stability, moral and ethical judgment and includes, as in the mental defective, the inability to profit by experience.

Constitutional psychopathic inferiors may manifest ill defined episodes of mental symptoms or there may be comparatively well sustained psychotic reactions like manic depressive or schizophrenic psychoses.

17 Psychoses with Mental Defect * Mental defectives, *idiots imbeciles*, and *morons* manifest the limitations imposed by rigidly limited intelligence. Fairly frequently they exhibit psychotic reactions, usually abortive episodes, perhaps hallucinatory, but also on a more simple pattern than in those who are intellectually normal. fairly well defined manic depressive and schizophrenic reactions may occur.

18 Undiagnosed Psychoses A well known professor of medicine at the end of each year gave a clinic on "Damfino Disease." In this clinic he demonstrated a group of patients with motley

* Since the terms "mental defect," feeble-mindedness, idiot, imbecile, "moron," etc. have acquired such stigmatizing meanings it would be well to substitute "intellectual limitation."

arrays of symptoms, the diagnostic significance of which, he had not been able to penetrate.

In psychiatry, if the study of the patient has been painstaking and reasonably skillful and if the diagnostic answer has not been found, it is not a confession of failure to place it under the undiagnosed psychoses. It would be unscientific psychiatry to trim a square peg of mental symptoms until it could be forced into a round diagnostic hole. By leaving the psychosis *undiagnosed*, the way is left open for further accumulations of information and for better understanding.

Further Thoughts About Nomenclature and Classification

As was stated, the nomenclature which has been presented probably will not survive in its present form, since it is not dynamically expressive and does not take into account such important considerations as predisposition, stress, resistance, depth of reaction and prognosis. On the other hand, it is contended that the existing classification is serviceable, that to change it would negate the value of carefully compiled statistics, that a new classification might not lend itself to tabulation by statistical data machines.

The discipline of psychiatry, like the disciplines of medicine and science in general, should not suffer inhibition in growth by reason of a machine and classification but, like any other segment of psychiatry, must of necessity be changed from time to time in order to meet the needs of practice and to be a record of progress.

Dynamic Names Every competent teacher of psychiatry is anxious to prevent his students from succumbing to the temptation of static sterile pigeonholed diagnostic thinking*. Above all else, he would like names to be dynamic, expressing individual etiology, prognostic and therapeutic considerations. This is not easy. The path of such worthwhile objectives is strewn with many

* Recently in a presentation before the International Post Graduate Assembly, in an effort to minimize the use of hasty rigid pigeonholed diagnoses I perpetrated this jingle

Little Jack Homer
Sat in a corner,
Eating his diagnostic pie
He stuck in his thumb
And pulled out a plum
(Neatly diagnostically labeled)
And said "What a good boy am I"

Jack was not a good boy at all since he was guilty of closed thinking subjecting his patients to the therapeutic loss which comes from precipitate diagnostic conclusions

semantic obstacles. An ideal diagnosis might be expressed by this formula *

P or Predisposition expresses largely the accumulated somato-psychic personality liabilities of the patient at the cross-section of his illness, representing, as it were, the scars and the weaknesses resulting from his experiences and reactions to his environment.

S represents Stress, not only single dramatic stress like the accidental death in horrible circumstances of a dearly loved husband wife or child, but also long enduring stress, for instance, the stress of a wife by economic expediency for the children, tied to an alcoholic and brutal mate.

R is Resistance, in a general way expressive of the accumulated assets innate in the patient's personality at the chronologic cross-section of his illness, representing the personality defenses and the strengths he has acquired in the battle with self and his environment.

Predisposition plus Stress divided by Resistance equals R_1, R_2, R_3, R_4, R_5 , etc., or the resultant illness, whether it be psychotic or psychoneurotic and is indicative, too, of the depth of the reaction and the chances of recovery.

Meeting the Needs The author had the privilege of participating in the framing of both the Army and the Navy psychiatric nomenclatures. Each one has defects, but they do represent sincere and at least partially successful attempts to meet the needs of modern psychiatric practice. The Army classification, which is now widely used, is reproduced, together with the explanatory material.

In setting up the definitions of psychiatric conditions, the term "disorder" has been used for the designation of the generic group of the specific reactions, while the specific reaction types have been termed "reactions." In classifying psychoneuroses, the dynamics of psychopathology was chosen as the basis. Of necessity, a few terms remained descriptive (symptomatic). In general, an attempt has been made to retain only such formerly used terms as could be fitted into this general plan and omit categories which were "catch all," such as "simple adult maladjustment," "constitutional psychopathic state," etc.

In recording a psychiatric condition, the particular type of condition ("reaction") will be specified and not its generic form ("disorder"). Whenever a reaction is subclassified, only the subcategory will be recorded as the diagnosis. In general, only the lowest applicable subclassi-

* Acknowledgment is made to Nolan D. C. Lewis for the idea expressed in the formula

$$\frac{P + S}{R} = R_1, R_2, R_3, R_4, R_5, \text{ etc.}$$

fication of the specific disorder as given in the list of terms under "Psychiatric Conditions" will be stated as the diagnosis

A. No Psychiatric Syndrome. This heading includes those conditions previously described as "no disease" or "no psychiatric diagnosis"

B. Transient Personality Reactions to Acute or Special Stress

- 1 Combat Exhaustion
- 2 Situational Maladjustment

Transient Personality Reactions to Acute or Special Stress. A normal personality under conditions of very great or unusual stress may utilize established patterns of reaction to express overwhelming fear or flight reaction. But the clinical picture differs from that of neuroses or psychoses chiefly in points of direct relationship to external precipitation and reversibility. There is an essentially negative historical background. Hence, the following diagnoses should be restricted to (1) those acute conditions which are usually transient (and may be acute and severe) and (2) those conditions which, because of their fluid state or because of the limitations of time permitted for their study, should not be given a more definitive diagnosis. In the Army, these will not be used as basis for discharge.

COMBAT EXHAUSTION This is an emergency diagnosis and should be used only until a more definite diagnosis can be established. This term is justified only in situations in which the individual has been exposed to severe physical demands and/or extreme emotional stress such as seen in combat soldiers within the combat area. (Although the word "combat" would not be appropriate, yet there are in civilian life instances of catastrophic emotional stress, sometimes accompanied by physical depletion.)

SITUATIONAL MALADJUSTMENT Manifested by anxiety, alcoholism, asthenia, poor efficiency, low morale, unconventional behavior, etc. This diagnosis will include some cases previously classified as "simple adult maladjustment." It implies that the clinical picture is primarily one of a superficial maladjustment to newly experienced environmental factors or specific trying and difficult situations and in which there is no evidence of long standing or underlying personality defects or chronic neurotic patterns. In some instances, if untreated or not relieved, the individual may progress to the development of a typical psychoneurotic or psychopathic reaction. This term may apply to cultural maladjustment in the absence of definite neurotic mechanisms.

C. Psychoneurotic Syndromes

- 1 Anxiety Reaction
- 2 Phobic Reaction
- 3 Conversion Reaction
- 4 Dissociative Reaction
- 5 Obsessive Compulsive Reaction
- 6 Hypochondriac Reaction
- 7 Depressive Reaction (Neurotic) Situation

8. Somatization Syndromes
 - a. Psychogenic Gastro-intestinal Reaction
 - b. Psychogenic Cardiovascular Reaction
 - c. Psychogenic Genito-urinary Reaction
 - d. Psychogenic Asthenic Reaction
 - e. Psychogenic Allergic Reaction
 - f. Psychogenic Skin Reaction
 - g. Psychogenic _____ Reaction
9. "Mixed Reaction"
10. "Traumatic Reaction"
 - a. Postconcussion Reaction
 - b. Postencephalitic Behavior Reaction
 - c. Posttraumatic Reaction (Amputee, Plastic, Postoperative)
 - d. Deformity (Specify), Reaction to _____

Psychoneurotic Syndromes. Psychiatric pictures characterized by anxiety which may be "free floating" or unbound (anxiety reaction) or may be unconsciously and automatically controlled by various defense mechanisms without gross distortion or falsification of the external reality situation. "Anxiety" as applied in the psychoneurotic syndromes is perceived by the ego as a danger signal arising as a threat from within the personality (overwhelmed by feeling) or from without (loss of love or threat of injury).

ANXIETY REACTION. This term is synonymous with "anxiety state." The psychologic aspect of anxiety is felt by the patient; the physiologic aspects are visible to the physician. It is diffuse and not restricted to certain definite situations or objects as in the phobias. It is not "bound" or controlled by any psychologic defense mechanism. The picture is to be distinguished from normal apprehensiveness or fear.

PHOBIC REACTION. (Indicate symptomatic manifestation.) By an automatic mental mechanism anxiety becomes detached from some specific mental content in the daily life behavior and the emotional charge is displaced to some symbolic object or situation in the form of a specific neurotic fear. The more common forms observed in civilian life include spychilis, dirt, closed places, high places, open places, some animals, etc.; in the military, other specific neurotic fears have been observed, including specific weapons, combat noise, planes, etc. The patient can control his anxiety if he avoids the phobic object or situation. This term includes cases sometimes classed as "anxiety hysteria."

CONVERSION REACTION. This term is synonymous with "conversion hysteria." (Indicate symptomatic manifestations as pain [cephalgia, myalgia, arthralgia, etc.], anesthesia [anosmia], paralysis [paresis, aphonia, monoplegia or hemiplegia], dyskinesia [tic, tremor, postures, catalepsy, convulsion].) In conversion reaction (hysteria) the anxiety, instead of being experienced consciously, either diffusely or in phobias is partially "converted" into a physical symptom of organs or parts of the body which are mainly innervated by the voluntary or somatic central nervous system.

DISSOCIATIVE REACTION (Indicate symptomatic manifestations as de-personalization, dissociated personality, stupor, fugue, amnesia, dream state, somnambulism) These conditions are usually of neurotic and not psychotic degree and must be differentiated from schizoid personality, schizophrenic reaction, or as one symptom in some other type of neurotic reaction. This reaction was previously often classified as a type of "conversion hysteria."

OBSESSIVE COMPULSIVE REACTION (Indicate symptomatic manifestation) Anxiety may be (1) somewhat observable in connection with obsessional fear of uncontrollable impulses or (2) may be under apparent control through a mental mechanism (isolation) by which the emotional stimulus becomes automatically separated from the main stream of consciousness and manifests itself in a displaced form through useless or excessive, often repetitive, activity (utilizing the mental mechanisms of "undoing" and "displacement"). Symptomatic expressions include touching, counting, ceremonials, handwashing, recurring thoughts, often with compulsion to repetitive action. The patient himself may regard these as unreasonable or even silly but nevertheless is compelled to carry out his ritual. This category includes most cases formerly classified as "psychasthenia."

HYPPOCHONDRIAC REACTION This term is synonymous with "hypochondriasis." Characterized by obsessive concern about the state of health or the condition of various organs. There is often a multiplicity of complaints involving different organs or body systems. Must be differentiated from malingering, from depression, from obsessive compulsive reaction, from a prepsychotic symptom picture, from various specific somatization syndromes (See C 8).

DEPRESSIVE REACTION (NEUROTIC) SITUATION This term is synonymous with "Reaction Depression." Anxiety is expressed by self depreciation (through the mental mechanism of introjection), often associated with mild guilt reactions for past failures or deeds. The individual is often very critical of himself and may manifest feelings of inferiority. This is a nonpsychotic response, precipitated by a current situation, and dynamically the depression is usually related to repressed (unconscious) aggression.

SOMATIZATION SYNDROMES (Specify type as listed) This term is used in preference to psychosomatic on the basis that the latter refers to a point of view toward all medicine rather than a few borderline conditions. This group includes the so called "organ neuroses." Anxiety is expressed through the autonomic nervous system in visceral organ complaints and symptoms. The syndrome represents the visceral concomitants of anxiety which is prevented from being conscious. The symptom is the chronic and exaggerated state of the normal physiology of the emotion, the feeling or subjective part of which is repressed. Long continued dysfunction may eventuate in morphologic changes. This entire group specially justifies the principles of good physical and laboratory diagnosis without

delay, during which the medical officer must maintain an active relationship and not stall for time under the self-deception of continued examination. Each type listed below should be amplified with the specific symptomatic expressions (anorexia, weight loss, dysmenorrhea, hypertension, etc.). The following categories include a wide variety of previously used diagnostic terms. Some such cases were classed as "conversion hysteria"; others as "anxiety state"; symptomatic terms such as "cardiac neurosis," "gastric neurosis," etc.

PSYCHOGENIC GASTRO-INTESTINAL REACTION (This may include specified types such as peptic ulcerlike reaction, chronic gastritis, mucous colitis, constipation, "heartburn," hyperacidity, pylorospasm, "irritable colon," etc.)

PSYCHOGENIC CARDIOVASCULAR REACTION (If desired, specify established types such as paroxysmal tachycardia. Neurocirculatory asthenia is classically an "anxiety reaction," but similar clinical pictures without subjective anxiety should be classified under this term.)

PSYCHOGENIC GENITO-URINARY REACTION (Menstrual disturbances, impotence, frigidity, dysuria, etc.)

PSYCHOGENIC ASTHENIC REACTION General fatigue with visceral complaints, includes cases previously termed "neurasthenia." This may include "mixed" visceral organ symptoms and complaints. Weakness and fatigue may indicate a physiologic neuro endocrine residue of previous anxiety and not necessarily an active psychologic conflict.

PSYCHOGENIC ALLERGIC REACTION Occasional instances of apparent allergic responses have a major emotional element in their production, including some cases of hives and angioneurotic edema.

PSYCHOGENIC SKIN REACTION Includes the so called neurodermatoses, dermatographia, others with major emotional factors.

PSYCHOGENIC ——— REACTION Add other visceral symptoms as indicated.

"MIXED REACTION" This designation will *not* be used as a diagnosis. Such cases heretofore so designated will be diagnosed under the predominant type, with further amplification of other symptomatic expressions, i.e., "anxiety reaction with minor conversion symptoms."

"TRAUMATIC REACTION" This designation (as well as "Traumatic Neurosis") will not be used as a diagnosis. Reactions associated with organic disease or injury will be regarded as secondary to that disease or injury, if psychoneurotic in nature, they will be classified according to the specific type of psychoneurotic reaction displayed, e.g., Depressive Reaction, Situational, Posttraumatic Reaction to Amputation. The following example notations will be listed in the completed diagnostic formulation under B, "External Precipitating Stress"

POSTCONCUSSION REACTION

POSTENCEPHALITIC BEHAVIOR REACTION

POSTTRAUMATIC REACTION (AMPUTEE, PLASTIC, POSTOPERATIVE)

DEFORMITY (SPECIFY), REACTION TO ———

D. Pathologic Personality Syndromes

1. Pathologic Personality Types
 - a Schizoid Personality
 - b Paranoid Personality
 - c Cyclothymic Personality
- 2 Pathologic Social Syndromes
 - a Addiction Reaction Type
 - b Criminal Reaction Type
 - c Psychopathic (Personality) Reaction Type
 - d Asocial Reaction Type
- 3 Overt Sexual Deviate Reaction
- 4 Immaturity Syndromes
 - a Emotional Instability Reaction
 - b Passive dependency Reaction
 - c Passive-aggressive Reaction
 - d Aggressive Reaction
 - e Immaturity with Symptomatic "Habit" Reaction
 - (1) Enuresis
 - (2) Persistent Speech Disorder

Pathologic Personality Syndromes. Characterized by developmental defects or pathologic trends in the personality structure, with minimal subjective anxiety, little or no sense of distress, and in most instances manifested by behavior ("acting out") rather than by mental or emotional symptoms

PATHOLOGIC PERSONALITY TYPES The maladjustment of many individuals is evidenced in lifelong behavior patterns which have frequently been described as personality types. There is usually an absence of anxiety and no consistent awareness of distress or conflict. These types may be a developmental stage of psychoneurosis or psychosis, but do not, under ordinary circumstances, progress to the stage of either a neurosis or a psychosis. The symptom picture is not sufficiently crystallized to justify a diagnosis of any type of neurosis or psychosis. These represent borderline adjustment states.

SCHIZOID PERSONALITY Reacts to stress with unsociability, seclusiveness, overseriousmindedness, nomadism, often eccentricity.

PARANOID PERSONALITY Characterized by many traits of the schizoid personality with a conspicuous trend toward suspiciousness, envy, and extreme jealousy.

CYCLOTHYMIC PERSONALITY (Specify as hypomanic, depressed, or alternating) Characterized by frequent alterations of mood between elation and sadness, stimulated apparently by internal factors rather than by external events. Patient may occasionally be persistently euphoric or depressed, without falsification or distortion of reality.

PATHOLOGIC SOCIAL SYNDROMES Characterized by their maladjustment in specific relation to other people, and entirely evident in behavior rather than symptoms.

ADDICTION REACTION TYPE (Specify alcohol or drug) This diagnosis implies antisocial behavior while under their influence. It does not include the excessive symptomatic utilization of alcohol in a person with a definite psychiatric condition such as depression or psychoneurosis, nor does it include acute alcoholic intoxication, which should be listed under intoxications. This term includes those cases formerly classed merely as "drug addiction", also some cases included in "constitutional psychopathic state".

CRIMINAL REACTION TYPE This term implies actual violation of the law and may be subdivided into situational, neurotic (kleptomania, pyromania, etc.), environmental ("normal"), or psychotic types.

PSYCHOPATHIC (PERSONALITY) REACTION TYPE Applies *only* to the chronic antisocial person, always in trouble, profiting neither by experience nor punishment, maintaining no real loyalties to any person, group or code, not the calculating criminal but one who is on the verge of criminal conduct and may at times become involved in it. This term includes some cases formerly classed as "constitutional psychopathic state" but is much more limited as well as specific in its application.

ASOCIAL REACTION TYPE This term includes most cases previously classed as "Psychopathic Personality, asocial and amoral trends". Many asocial and antisocial individuals may be better classified under D, 2, b or c. On the other hand, many may be the normal product of a lifelong abnormal environment and manifest their disregard for social codes by being gangsters, vagabonds, racketeers, prostitutes, fabricators, etc.

OVERT SEXUAL DEVIATE REACTION Specify type such as homosexual reaction, transvestitism, pedophilia, fetishism, sexual sadism (including rape, sexual assault, mutilation). These conditions are often a symptom complex to be seen in more extensive syndromes as schizophrenic and obsessional reactions. This designation includes most cases previously classed as 'Psychopathic Personality, Pathologic Sexuality'.

IMMATURITY SYNDROMES (To this diagnosis add the specific type as listed below.) This category applies to various reactions of individuals who, because of deficiencies in emotional development, are unable to maintain their emotional equilibrium and independence under minor or major stress. Some of these individuals of this type present evidence of physiologic immaturity.

EMOTIONAL INSTABILITY REACTION This term is synonymous with the former diagnosis of 'Psychopathic Personality, emotional instability'. Manifested by excitability and ineffectiveness when confronted with minor stress. Undependable judgment under such stress, relationship to other people is continuously fraught with fluctuating emotional attitudes.

PASSIVE DEPENDENCY REACTION This clinical picture is often associated with an anxiety reaction, typically psychoneurotic but may be a type of emotionally immature personality development characterized by helplessness, indecisiveness and a tendency to cling to others. There is a predominant child parent relationship.

PASSIVE AGGRESSIVE REACTION The aggressiveness in this picture is expressed by passive measures such as pouting, stubbornness, procrastination inefficiency and passive obstructionism

AGGRESSIVE REACTION A persistent reaction to frustration with irritability, temper tantrums and destructive behavior This diagnosis does not apply to cases more accurately described by the term "psychopathic personality reaction type" A specific variety of this reaction is morbid or pathologic resentment

IMMATURITY WITH SYMPTOMATIC 'HABIT' REACTION (Specify types as listed below) It is not necessary to precede the diagnosis with "Emotional Immaturity Syndromes" This group is for pragmatic reasons, one of primarily symptomatic diagnoses and of use in those occasional situations where a specific symptom is the single outstanding expression These terms should not be used as diagnoses when these symptoms are associated with or are secondary to organic illnesses and defects or major psychiatric syndromes

Enuresis This diagnosis will not be used when condition is due to an organic cause

Persistent Speech Disorder In contrast to a temporary symptom of conversion hysteria there are many instances of defective speech, developing in childhood and persisting in which there are not sufficient other symptomatic expressions to justify any definite diagnosis

E Mental Deficiency Syndromes

- 1 Mental Deficiency, Organic
- 2 Mental Deficiency, Functional
- 3 Specific Learning Defects

Mental Deficiency Syndromes **MENTAL DEFICIENCY, ORGANIC** When the etiology is traumatic postinfectious or other specific causes the mental retardation diagnosis is secondary to the encephalopathy It may be associated with superimposed maladjustment (neurotic or psychotic disorder) in which case the other (mental) conditions are secondary diagnoses

MENTAL DEFICIENCY, FUNCTIONAL (Characterized by (1) blocking of the intellectual function by emotional conflicts or (2) due to deprivation of educational opportunities If this condition is secondary to some psychotic or neurotic condition it is to be so indicated)

SPECIFIC LEARNING DEFECTS (Specify reading mathematics strephosymbolia etc , and if known organic etiology is present, specify the type of encephalopathy)

F Minor Reactions (Nonpsychotic) to Organic Disease, Trauma, Intoxication

- 1 Definite Mental Reactions, Other Than Psychotic
 - a Influenza Psychogenic Cardiovascular Reaction Tachycardia
 - b Carbon Monoxide Poisoning Dissociative Reaction Amnesia
 - c Acromegaly Depressive Reaction (Neurotic), Situational
 - d Cerebral Arteriosclerosis Hypochondriac Reaction

- c Traumatic Encephalopathy Criminal Reaction Type
- 2 Mental Reactions
 - a Pneumonia Mental Reaction, Anxious Type
 - b Sclerosis, Disseminated Mental Reaction, Confusional Type
 - c Senility Mental Reaction, Deteriorated Type
 - d Epidemic Encephalitis Mental Reaction, Behavior Disorders

Minor Reactions (Nonpsychotic) to Organic Disease, Trauma, Intoxication: DEFINITE MENTAL REACTIONS, OTHER THAN PSYCHOTIC
 These are recognized to occur in many, if not most, organic illnesses. In the great majority of these cases, a psychiatric diagnosis is neither necessary nor indicated, since the mental status should be described in the history and/or physical examination as any other symptom or sign. When the mental reaction is sufficiently marked or well defined, even though not psychotic, to justify its inclusion in the diagnosis, it will be indicated insofar as possible in any of the terms listed above as secondary to the disease, injury, or intoxication.

Examples

INFLUENZA PSYCHOGENIC CARDIOVASCULAR REACTION TACHYCARDIA
 CARBON MONOXIDE POISONING DISSOCIATIVE REACTION, AMNESIA
 ACROMEGALY DEPRESSIVE REACTION (NEUROTIC), SITUATIONAL
 CEREBRAL ARTERIOSCLEROSIS HYPOCHONDRIAC REACTION
 TRAUMATIC ENCEPHALOPATHY CRIMINAL REACTION TYPE

MENTAL REACTIONS Experience has shown that many of the mental reactions with organic disease, trauma and intoxication do not coincide with any of the well defined psychoneurotic or behavior disorders. In such cases, the mental reaction will be described in the following terms: schizoid, suspicious, depressed, deteriorated, confusional, anxious, panic, excited, apathetic, behavior disorder.

These terms as applied to nonpsychotic conditions will imply that the condition is mild or, at most, moderate in severity, if such symptoms are pronounced, the condition will be classified properly under psychotic reactions.

Examples

PNEUMONIA MENTAL REACTION, ANXIOUS TYPE
 SCLEROSIS, DISSEMINATED MENTAL REACTION, CONFUSIONAL TYPE
 SENILITY MENTAL REACTION, DETERIORATED TYPE
 EPIDEMIC ENCEPHALITIS MENTAL REACTION, BEHAVIOR DISORDERS

G. Psychotic Syndromes

- 1 Psychoses of Psychobiologic Origin Without Known Structural Change
 - a Schizophrenic Syndromes
 - (1) Schizophreniclike Reaction, Acute
 - (2) Schizophrenic Reaction, Acute
 - (3) Schizophrenic Reaction, Latent

- (4) Schizophrenic Reaction, Simple Type
- (5) Schizophrenic Reaction, Hebephrenic Type
- (6) Schizophrenic Reaction, Katatonic Type
- (7) Schizophrenic Reaction, Paranoid Type
- b Paranoid Syndromes
 - (1) Paranoia
 - (2) Paranoid State
- c Affective Syndromes
 - (1) Depressive Reaction (Psychotic Degree), Situational
 - (2) Manic-Depressive Reaction
 - (3) Involution Melancholia
- d Psychotic Reaction with Mental Deficiency
- e Psychotic Reaction with Psychopathic Personality
- 2 Psychoses with Demonstrable Etiology and/or Associated Structural Changes
 - a Associated with Infections
 - (1) Syphilitic Meningo encephalitis (General Paresis)
 - (2) Meningovascular Syphilis
 - (3) Epidemic Encephalitis (Acute or Chronic)
 - (4) Associated with Other Types of Infection, Including Systemic Infections
 - b Associated with Exogenous Poisoning
 - (1) Alcoholic Poisoning
 - (2) Drug Poisoning
 - (3) Carbon Monoxide Poisoning
 - c Associated with Noninfectious Endogenous Poisoning
 - d Associated with Vitamin Deficiencies
 - (1) Pellagra, Psychosis with
 - (2) Korsakoff's Psychosis
 - e Associated with Convulsive Disorders
 - (1) Paroxysmal Convulsive Disorder
 - f Associated with Senility
 - (1) Senile Psychosis
 - (2) Presenile Psychosis (Alzheimer's Disease)
 - g Associated with Disturbances of the Cardiovascular System
 - (1) Cerebral Arteriosclerosis
 - (2) Cerebral Embolism
 - h Associated with Trauma
 - (1) Traumatic Encephalopathy
 - i Associated with Neoplastic Disease
 - j Associated with Chronic Neurologic Disorders
 - (1) Sclerosis, Disseminated
 - (2) Chorea, Chronic, Degenerative (Huntington's)
 - (3) Others

Psychotic Syndromes. (*Italicized terms only to be used in diagnosis*)

PSYCHOSES OF PSYCHIOBIOLOGIC ORIGIN WITHOUT KNOWN STRUCTURAL CHANGE SCHIZOPHRENIC SYNDROMES A group of mental illnesses char-

acterized by fundamental affective and intellectual disorders, in various degrees and mixtures, strong tendency to retreat from reality, emotional disharmony, unpredictable disturbances in stream of thought, and tendency to "deterioration" (not necessarily fulfilled), which may progress to childishness ("dementia")

Schizophreniclike Reaction, Acute This diagnosis applies to those transient acute psychotic episodes, usually beginning precipitously and usually clearing spontaneously. They are characterized by acute confusion, disorientation, often pronounced affective disturbance, in many cases delusions and occasionally hallucinations. The condition may last from a few days to a few weeks. The clinical picture differs from acute schizophrenic reaction in the predominance of confusion, the amount of affect, the acute disorganized state of personality integration, and the brief duration with spontaneous remission. In a few cases, the clinical picture progresses to typical schizophrenic reaction. This type of reaction is seen, both under great stress (combat) as well as situations in which the external stress appears minimal.

Schizophrenic Reaction, Acute A large variety of schizophrenic symptomatology (confusion of thinking and confusion of emotion along with secondary elaboration manifested by perplexity, ideas of reference, fear and dream states, dissociative phenomena), which appears precipitously, often without apparent precipitating stress, but with historical evidence of prodromal symptoms. Very often there is a pronounced affective coloring, either excitement or depression. The picture may clear in a matter of weeks, although there is a tendency to recur, it may progress to any of the four types following.

Schizophrenic Reaction, Latent Certain individuals are recognized as presenting definite schizophrenic ideation (including delusions) and behavior (mannerisms, unpredictable acts) which are beyond the schizoid personality but not as advanced as the acute or chronic schizophrenic reactions. These individuals may be incipient schizophrenics or may maintain their borderline adjustment over long periods. Rarely is hospitalization necessary. They represent a borderline psychosis and except under close observation or examination may show no psychotic symptoms.

Schizophrenic Reaction, Simple Type Characterized chiefly by reduction in external attachments and interest, and impoverishment of human relationships, often adjusting at a lower psychobiologic level of functioning with apathy and indifference, rarely with conspicuous delusions or hallucinations.

Schizophrenic Reaction, Hebephrenic Type Characterized chiefly by shallow inappropriate affect, unpredictable giggling silly behavior and mannerisms, delusions often of a somatic nature and hallucinations.

Schizophrenic Reaction, Katatonic Type Characterized chiefly by conspicuous motor behavior, either with marked generalized inhibition resulting in stupor, mutism, negativism, waxy flexibility or with excessive motor activity and excitement. The individual may regress to a state of vegetation.

Schizophrenic Reaction, Paranoid Type Characterized by schizophrenic (derealistic) thinking and unpredictable behavior, with mental content concerned chiefly with delusions of persecution, occasionally of grandeur, hallucinations and a fairly constant attitude of hostility and aggression, ideas of reference. Excessive religiosity may be present, and rarely there may be no delusions of persecution, but an expansive and productive delusional system of power, genius, or special ability.

PARANOID SYNDROMES *Paranoia* Extremely rare. Characterized by intricate, complex, slowly developing paranoid system with the individual usually regarding himself as particularly singled out, often endowing himself with superior or unique ability and even appointed for a Messianic mission. The paranoid system is particularly isolated from much of the normal stream of consciousness without hallucinations, with relative intactness and preservation of the remainder of the personality.

Paranoid State The development of transient paranoid delusions, lacking in systematization of the logical nature seen in paranoia and yet not manifesting the bizarre fragmentation and deterioration of the schizophrenic. Occurs most frequently between 35 and 55 years of age and is of relatively short duration but may be persistent and chronic.

AFFECTIVE SYNDROMES *Depressive Reaction (Psychotic Degree), Situational* This differs from the neurotic depression in that the patient manifests evidence of misinterpretation of external reality in terms of guilt and unworthiness. There is a relative failure in the ability to test reality. The affective response is greatly disproportional to the apparent situational stimulus.

Manic Depressive Reaction Specify as (a) manic, (b) depressive, (c) stuporous, (d) circular, (e) agitated, (f) with schizophrenic coloring.

Involution Melancholia Characterized most commonly by depression without previous history of either manic or depressive illnesses, occurs in middle life and later years. Tends to have a prolonged course and may be manifested by worry, anxiety, agitation, paranoid and other delusional ideas, somatic concerns. Often the paranoid coloring may be marked.

PSYCHOTIC REACTION WITH MENTAL DEFICIENCY Record the type of psychotic reaction utilizing one of the terms given in F2, as well as the type of mental deficiency as a secondary diagnosis.

PSYCHOTIC REACTION WITH PSYCHOPATHIC PERSONALITY Specify the type of psychotic reaction under the terms listed under F2.

PSYCHOSSES WITH DEMONSTRABLE ETIOLOGY AND/OR ASSOCIATED STRUCTURAL CHANGES In the majority of the following conditions the mental picture is a systemic symptom and, therefore, the psychotic reaction should be recorded as a secondary diagnosis, although, if independent, is recorded as a second independent diagnosis. In either case, it may coincide with any of the clinical pictures listed above (schizophrenia, manic-depressive reaction, etc.), and these terms should be used. In other instances, the type of psychotic reaction can best be described

merely as *schizoid, paranoid, depressed* or *manic*. In other instances, the mental picture will not be adequately described by one of these categories, and the following additional descriptive terms will be used to describe the type of psychotic reaction: *deteriorated, confusional, agitated, panic, excited, delirious, apathetic, stuporous*.

ASSOCIATED WITH INFECTIONS *Syphilitic Meningo encephalitis (General Paresis)* Specify the type of psychotic reaction as in one of the terms listed under F2, e.g., *Syphilitic Meningo encephalitis, psychotic reaction, confused type*.

Meningovascular Syphilis Specify type of psychotic reaction as in one of the terms listed under F2, e.g., *Meningovascular syphilis, psychotic reaction, depressed type*.

Epidemic Encephalitis (Acute or Chronic) Specify the type of psychotic reaction using one of the descriptive terms listed under F2, e.g., *Epidemic Encephalitis, chronic, psychotic reaction, depressed type*.

Associated with Other Types of Infection, Including Systemic Infections When associated with general infection, the psychiatric picture is one of the symptoms, and its diagnosis should be secondary to the systemic condition. Febrile delirium frequently occurs and may or may not be recorded in the diagnosis. Mental reactions of psychotic degree occasionally occur with influenza, pneumonia, typhoid fever, acute rheumatic fever, meningitis and acute chorea. Example: *Pneumonia, pneumococcus type III, Psychotic reaction, delirious type*.

Mental reactions, even psychoses, are precipitated by a systemic infection, in which case the psychotic diagnosis is primary, e.g., *schizophrenic reaction, katatonic type, postinfectious to influenza (or malaria, pneumonia, chorea)*.

ASSOCIATED WITH EXOGENOUS POISONING Most complete nomenclatures include a section on poisoning or toxication, and the concomitant mental symptoms should be indicated in most instances as a secondary diagnosis.

Alcoholic Poisoning, psychotic reaction Specify type as *Delirium Tremens, acute hallucinosis, others*.

Drug Poisoning Specify drug and indicate acute or chronic. Specify the secondary psychotic reaction type in accordance with the terms under F2, e.g., *bromide poisoning, chronic, psychotic reaction, confusional type*.

Carbon Monoxide Poisoning Specify type of psychotic reaction in accordance with F2.

ASSOCIATED WITH NONINFECTIOUS ENDOGENOUS POISONING Mental symptoms may occur in various types of toxemias but are secondary to these and should be so indicated. They occasionally occur with cardiovascularrenal disease (including uremia), toxemias of pregnancy (excluding infectious toxemias), diabetes, severe endocrinopathies. Describe the mental reaction in accordance with the terms under F2, e.g., *acromegaly, psychotic reaction, depressed type, e.g., chronic nephritis, psychotic reaction, confused type*.

ASSOCIATED WITH VITAMIN DEFICIENCIES *Pellagra, Psychosis with*
Specify type

Korsakoff's Psychosis Associated with alcoholism, pregnancy, etc

ASSOCIATED WITH CONVULSIVE DISORDERS *Paroxysmal Convulsive Disorder* Specify type and describe the secondary psychiatric reaction in accordance with terms listed in F2, e g, Paroxysmal Convulsive Disorder, grand mal, psychotic reaction, deteriorated type

ASSOCIATED WITH SENILITY *Senile Psychosis* Specify or describe psychotic reaction in terms of types listed under F2, e g, Senility, psychotic reaction, confused type

Presenile Psychosis (Alzheimer's Disease) Profound dementia occurring between 45 and 60 years of age, manifested by mood changes, aphasia, apraxia

ASSOCIATED WITH DISTURBANCES OF THE CARDIOVASCULAR SYSTEM
Cerebral Arteriosclerosis, psychotic reaction Specify type The symptoms due to cerebral arteriosclerosis are difficult to differentiate from senile psychosis The diagnosis must be based on a history or findings of cardiovascular disease

Cerebral Embolism (or Thrombosis), psychotic reaction Specify type

ASSOCIATED WITH TRAUMA *Traumatic Encephalopathy* Specify the nature, location of trauma with the psychotic reaction described according to the terms in F2, e g, skull fracture, occipital area, psychotic reaction, deteriorated type, e g, encephalopathy, traumatic with psychotic reaction, delirious type

ASSOCIATED WITH NEOPLASTIC DISEASE Specify type and location, with the psychotic reaction as secondary, described in terms outlined under F2

ASSOCIATED WITH CHRONIC NEUROLOGIC DISORDERS *Sclerosis, Disseminated*, psychotic reaction Describe type

Chorea, Chronic, Degenerative (Huntington's), psychotic reaction Specify type in terms listed under F2

Others Specify

Much of the value and dynamism of the above classification and nomenclature depends upon its understanding and the manner of recording

MANNER OF RECORDING

INDIVIDUAL MEDICAL RECORDS

General. The reactions or specific types of psychiatric conditions (anxiety reaction, emotional instability reaction, schizophrenic reaction, simple type, etc) are sufficiently well defined to justify their use apart from any generic terms indicating the broad disorder groups (psychoneurotic disorders, character and behavior disorders, immaturity reactions, psychoses without known organic etiology, schizophrenic disorders, etc). In recording psychiatric conditions, only the lowest subclassification of the disorder will be specified, without being prefaced

by any terms such as psychoneurosis or psychosis. Even though the list of terms includes the generic terms for the broad disorder groups, these will not be recorded as part of the diagnosis.

In each case the severity of the reaction will be recorded, and the reaction will be qualified as acute or chronic. The severity of a particular reaction should not be determined solely by the degree of ineffectiveness, since other factors, such as underlying defective attitude, other psychiatric or physical conditions, etc., may contribute to the total ineffectiveness.

Outstanding or conspicuous symptomatology may be added to any of the psychiatric diagnoses, manifestations must be reported for those reactions indicated in the list of terms as requiring such reporting.

MULTIPLE DIAGNOSES PSYCHIATRIC REACTIONS WITH PHYSICAL DISORDERS

1 **GENERAL** The general principle governing recording of all diagnoses will likewise apply to the selection of the first diagnosis in cases which involve psychiatric conditions. The immediate condition which was principally responsible for the initial admission is to be considered as the primary cause of admission and recorded as Dg 1. In applying this general principle to cases involving psychiatric conditions, the following combinations may be considered.

2 **UNRELATED DIAGNOSES** Physical and mental disorders may coexist but be causally unrelated. In such instances the two or more conditions will be listed as separate diagnoses with the primary diagnosis being selected on the usual basis. Example (1) Diabetes mellitus, (2) mental deficiency, primary, etc.

3 **RELATED DIAGNOSES** Physical and mental disorders may coexist and be causally related. Whether the two conditions are recorded as separate diagnoses or as only one depends on the nature of the conditions.

(a) *Combinations Requiring Only One Diagnosis* In some instances, the mental reaction, though related, is not sufficiently developed as a clinical psychiatric entity to make a formal psychiatric diagnosis either necessary or indicated. For example, a patient with pneumonia may be apprehensive and tense, the mental status should be described in the clinical history or physical examination along with any other symptom or sign. Minor nonpsychotic mental reactions need be reported only thus, the individual medical record will carry only the nonpsychiatric diagnosis.

Definite pathologic mental reactions, other than well-defined clinical syndromes, may often be symptoms of organic disease of the brain, including trauma or intoxication. These include such instances as delirium of febrile reaction, intoxication with uremia, mental reactions with any systemic infection and with brain infection, neoplasm, trauma, degenerative disease or vascular disease. As such, these conditions are to be regarded as symptoms of the physical condition.

Whenever such a mental reaction which does not constitute any of

the well defined clinical pictures is sufficiently pronounced to justify mention in the diagnosis, it will be recorded as a manifestation of the primary diagnosis. Since it does not constitute a well defined clinical type, it will be specified as a nonpsychotic or psychotic reaction and amplified by one or more of the following descriptive terms as types: schizoid, paranoid, depressed, manic, euphoric, deteriorated, confused, anxious, agitated, panic, excited, delirious, apathetic, stuporous, specific behavior disorder. The degree of stress, predisposition and incapacity will not be listed. Examples: (a) syphilitic meningo encephalitis, "old," etc., manifested by psychotic reaction, confused, (b) epidemic encephalitis, acute, etc., manifested by nonpsychotic reaction, behavior disorder. There are other instances where physical and mental disorders coexist and where the physical disorder is a manifestation of the psychiatric condition rather than a separate condition. Where this is true, only the psychiatric condition should be listed as the diagnosis, and the physical condition should be shown as a manifestation thereof. Example: Psychogenic gastrointestinal reaction, chronic, severe, manifested by mucous colitis and hyperacidity.

(b) *Combinations Requiring Separate Diagnoses* Physical and mental disorders may coexist and be causally related, with both conditions being sufficiently marked and well defined to justify separate diagnosis. In such cases, the causal relationship of the diagnoses should be indicated. The selection of the order of the diagnoses will depend upon which condition was first in the chain of etiology, the only one which caused or directly led to the other will be selected as the first diagnosis. This order of diagnoses will be followed despite the fact that in most, if not all cases the psychiatric symptomatology is related to personality factors existing prior to the physical disease or trauma. Example: (a) Fracture of skull, simple, depressed, left occipital area, etc., (b) paranoid state, precipitated by skull fractures, etc.

(c) *Multiple Psychiatric Diagnoses* If and when two separate psychiatric conditions exist, such as a psychopathic personality and a psychosis, both shall be recorded. If a diagnostic entity (which, if encountered as an isolated personality disturbance, would be recorded as the only diagnosis) is a part of a more extensive process or secondary to it, the primary diagnosis will be given, with the less important condition given as a manifestation of that diagnosis. Example: Anxiety reaction manifested by somnambulism, passive aggressive reaction, manifested by enuresis (list other manifestations), asocial reaction type with sexual sadism.

Some psychiatric conditions, if established as the primary diagnosis, are incompatible with certain other psychiatric diagnoses and will not be recorded as existing together. Examples: Psychoneurotic and psychotic reactions, acute situational maladjustment with psychoneurotic or psychotic reactions, combat exhaustion with psychoneurotic or psychotic reactions. Many of these conditions may progress from one to another but are not simultaneously present. Similarly, only one type

of psychoneurotic or psychotic reaction will be used as a diagnosis, even in the presence of symptoms of another type. The diagnosis in such cases will be based on the predominant type, with a statement of manifestations including symptoms of other types of reaction, thus "Anxiety reaction, with minor conversion symptoms, etc."

CLINICAL RECORDS

1. General. For certain conditions, the diagnosis of merely the type of reaction does not furnish sufficient information to determine disposition. Thus, for example, the term "anxiety reaction" does not convey whether the illness occurred in a previously normal or neurotic personality, it does not indicate the degree and nature of the external stress, nor does it reveal the extremely important information as to the degree of which the patient's functional capacity has been impaired. Therefore, for certain conditions as specified below, a complete diagnostic evaluation will be entered in the clinical records, including this information in addition to all of the requirements provided in (1) above for recording diagnoses on the Individual Medical Records. Each case so diagnosed will be evaluated from the following standpoints:

Type and severity of symptoms (diagnostic term recorded on Individual Medical Records)

External precipitating stress

Premorbid personality and predisposition

Degree of resultant incapacity (psychiatric disability)

The complete diagnostic evaluation for such cases will be recorded in the clinical records and dated in those situations and installations in which the medical officer has sufficient opportunity to evaluate the various points. When he does not have sufficient opportunity or information he should so indicate with the term "unknown" or "not determined." It is extremely important that those medical officers in the field, such as the flight surgeon, the division psychiatrist and the mental hygiene consultation psychiatrist, should indicate the external stress, even though they may not have the opportunity to determine predisposition.

In the utilization of this method of recording a diagnosis it is essential to recognize that the time element is all important, the diagnostic formulation on any particular date may (and in many cases, should) be changed at a subsequent date. A soldier may show marked incapacity upon admission to a hospital, but a few days later can return to duty with minor or no impairment. The disorder diagnosis of any particular type will in no way determine disposition without consideration of the stress, the predisposition and the functional incapacity, in cases where these are to be reported. Heretofore, the disorder diagnosis was all important. Under the present system, it becomes only one of the four factors to be considered in determining disposition.

2. Conditions Requiring Complete Diagnostic Evaluation. The four points listed above will apply to the following diagnostic categories: the transient personality reactions to acute or special stress (combat exhaustion and acute situational maladjustment), all types of psychoneurotic disorders, the immaturity reactions, and the various types of schizophrenic, affective and paranoid disorders. The stress, the predisposition and the degree of incapacity will not be outlined for the character and behavior disorders, except for immaturity reactions, mental deficiency, and psychotic reactions with organic etiology.

3. Requirements of Complete Diagnostic Evaluation. **TYPE AND SEVERITY OF SYMPTOMS (THE DIAGNOSTIC TERM)** The provisions above govern the recording of this first part of the four-part complete diagnostic evaluation. The diagnostic terms to be used have been defined and listed. The severity of reaction will be described by the appropriate word "mild," "moderate," "severe," and qualified as either "acute" or "chronic." Outstanding or conspicuous symptomatology may be listed.

Example "Anxiety reaction, mild, chronic, manifested by loss of appetite and insomnia." Obscure, ill defined and rarely used technical terms are to be avoided. If a reaction was severe and acute upon admission to a medical installation but improvement or recovery was effected with treatment, it will be recorded as "(type of reaction), acute, severe, improved, or recovered."

STRESS Under this heading the external stress is to be evaluated as to type, degree and duration. The stress will generally refer to the environmental situation, Army or otherwise, which is the direct cause of the reaction manifest in the patient. Unconscious internal conflicts will not be considered external stresses. The evaluation of the unconscious internal conflicts is important, both in understanding the nature of the clinical picture and in determining a basis for treatment and for estimating prognosis. It is omitted here only because of the difficulty in its uniform formulation and the varying degrees of understanding of psychodynamics by medical officers practicing psychiatry in the Army.

The judgment of the military stress can be made most accurately by the medical officer in the patient's own unit, since living in the same environment qualifies him to judge the stress. The opinion of the individual's commanding officer may be of value. It may be more difficult for a hospital psychiatrist to evaluate the stress to which the individual has been subjected, and when the stress cannot be determined, it should be recorded as "unknown."

The degree of stress, whether that of combat, regimentation, training, isolation, or other type, must be evaluated in terms of its effect on the "average man" of the group, rather than on the patient. It should not be presumed that a particular environmental stress is severe because one or even several individuals react poorly to it, since these individuals may have had poor resistance to this stress. Stress will be classified as "severe," "moderate" and "minimal." Severe stress is such that the average man could be expected to develop disabling psychiatric symptoms.

when exposed to it Minimal stress is such that the average man could be exposed to it without developing psychiatric symptoms Examples of recording stress "Severe stress of 60 days' continuous combat as a rifleman," "severe stress of 30 hazardous combat missions," "moderate stress of serious chronic domestic problems," "stress unknown or not determined"

PREDISPOSITION The description of the predisposition will consist of a brief statement of the outstanding personality traits or weaknesses which have resulted from inheritance and development and an evaluation of the degree of predisposition based on past history and personality traits, recorded as "no predisposition," "mild," "moderate," and "severe"

(a) **NO PREDISPOSITION EVIDENT** This description will be used when there is no evidence of previous personality traits or make up which appear to be related to the patient's present illness, and when there is no positive history of psychoneurotic or other mental illness in his immediate family

(b) **MILD PREDISPOSITION** This description will be used when the patient's history reveals mild transient psychologic (emotional) upsets and abnormal personality traits, or defect of intelligence which, however, did not significantly incapacitate the patient or did not require medical care It will also be used when there is a past history of mental illness in the patient's family

(c) **MODERATE PREDISPOSITION** This description will be used when the patient has a personal history of partially incapacitating psychologic (emotional) upsets or abnormal personality traits or defects in intelligence which resulted in his social maladjustment

(d) **SEVERE PREDISPOSITION** This description will be used in the presence of the patients' definite history of previous overt emotional or mental illness or disorder

DEGREE OF INCAPACITY (PSYCHIATRIC DISABILITY) The psychiatric disability represents the degree to which the individual's total functional capacity has been impaired by the psychiatric condition This is not necessarily the same as ineffectiveness, and therefore the degree of incapacity reported should not be determined solely by the degree of ineffectiveness Effectiveness in any particular job is a resultant of the individual's emotional stability, intellect, physical condition, attitude, training etc., as well as the degree and the type of his psychiatric disability Depending upon other circumstances, a man with a moderate psychiatric disability may be more effective than another man with a minimal disability Degree of incapacity as used here refers only to ineffectiveness resulting from the current psychiatric disability

The degree of disability at the time of original consultation or admission to the hospital will often vary from the degree of impairment after treatment Disability at the termination of treatment represents the residual or persistent impairment It will be recorded as "none," "minimal," "moderate," "marked" The individual's capacity to perform mili

2. Conditions Requiring Complete Diagnostic Evaluation. The four points listed above will apply to the following diagnostic categories: the transient personality reactions to acute or special stress (combat exhaustion and acute situational maladjustment), all types of psychoneurotic disorders, the immaturity reactions, and the various types of schizophrenic, affective and paranoid disorders. The stress, the predisposition and the degree of incapacity will not be outlined for the character and behavior disorders, except for immaturity reactions, mental deficiency, and psychotic reactions with organic etiology.

3. Requirements of Complete Diagnostic Evaluation. **TYPE AND SEVERITY OF SYMPTOMS (THE DIAGNOSTIC TERM).** The provisions above govern the recording of this first part of the four-part complete diagnostic evaluation. The diagnostic terms to be used have been defined and listed. The severity of reaction will be described by the appropriate word "mild," "moderate," "severe," and qualified as either "acute" or "chronic." Outstanding or conspicuous symptomatology may be listed.

Example "Anxiety reaction, mild, chronic, manifested by loss of appetite and insomnia." Obscure, ill defined and rarely used technical terms are to be avoided. If a reaction was severe and acute upon admission to a medical installation but improvement or recovery was effected with treatment, it will be recorded as "(type of reaction), acute, severe, improved, or recovered."

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be stated as a part of the diagnosis or as an additional diagnosis, as necessary

The diagnostic scheme employs the term "disorder" generically to designate a group of related psychiatric disorders. Insofar as is possible, each such group is broken down into specific psychiatric conditions labeled "reactions." A notable exception to the general plan is "Developmental Intellect Defect," which is essentially a symptom diagnosis.

Perhaps the major change from previous listings lies in the handling of the disorders with known organic etiologic factors. The mental disorders are divided into two groups:

(1) Those in which there is disturbance of mental function resulting from, or precipitated by, a primary impairment of the function of the brain, generally due to diffuse damage to brain tissue.

(2) Those which are more general in nature and may or may not be associated with disturbance in brain function, but in which such disturbance is likely to be secondary to the primary psychiatric disorder.

In the group (1) of the organic brain syndromes, the psychiatric picture is characterized by impairment of intellectual functions, memory, orientation and judgment and by some shallowness and lability of effect. This is a basic condition and may be mild, moderate, or severe. It may be the *only* mental disturbance present or may be associated with psychotic, neurotic, or behavior disturbances. These associated reactions are not related in severity to the degree of the organic brain syndrome and are determined as much by inherent personality pattern, the social setting and the setting of interpersonal relations as by the precipitating organic agent. Thus, a high level of blood bromide has been shown to produce only "bromide intoxication" in one group of individuals, although producing "bromide psychosis" in a second group. For this reason, these associated reactions are to be looked upon as being released by the organic brain syndrome and superimposed on it. The organic brain reaction thereupon becomes the proper focus of diagnosis, associated reactions should be specified by adding to the diagnosis a qualifying statement describing the manifestation, namely, "with psychosis," "with neurotic manifestations," or "with personality and behavior disturbance."

When the organic brain syndrome is produced by prenatal influence, or in the formative years of infancy and childhood, it not infrequently presents primarily as a disorder of intelligence and learning ability, although it is possible usually to demonstrate some

tary service will be used as the base line in estimating the degree of impairment

(a) **NO IMPAIRMENT** This term will be used, when, in the opinion of the medical officer, there are no medical reasons for changing the patient's current assignment or duty. An individual may have certain symptoms and yet have no medical reason for not performing full duty. For instance, symptoms of an anxiety state are present in the majority of troops engaged in combat, a returnee with mild symptoms may fail to function because of his attitude and not because of the severity of his illness.

(b) **MINIMAL IMPAIRMENT** This term will be used to indicate a slight residual degree of impairment in the patient's ability to carry on in his current assignment or duty.

(c) **MODERATE IMPAIRMENT** This term will be used to indicate a residual degree of incapacity which seriously, but not totally, interferes with the patient's ability to carry on his current assignment or duty.

(d) **MARKED IMPAIRMENT** This term will be used to indicate a residual degree of incapacity which totally prevents the patient from satisfactorily functioning in his current assignment. As in all cases of incapacity, the impairment may be temporary, in some cases it may be permanent.

The above classification is excellent, but no doubt it will be amended, particularly from the angle of its military coloring.

Under the leadership of George Raines, a Committee of the American Psychiatric Association has been considering carefully the problem of classification and nomenclature. While the list is still too tentative to be presented, it may be helpful to indicate the trends of thinking which have actuated the committee's work. It is to be remembered that these trends may be modified, and some of them even reversed, before the committee finishes its labors.

The preliminary draft of a proposed revision of the psychiatric nomenclature attempts to provide a classification system consistent with the concepts of modern psychiatry and neurology. It recognizes the present day clinical nature of all psychiatric diagnoses and attempts to make possible the gathering of data for future clarification of ideas concerning etiology, pathology, prognosis and treatment in mental disorders.

This outline limits itself to the classification of the disturbances of mental functioning. It does not include neurologic diagnoses or diagnoses of intracranial pathology per se. Such conditions should be diagnosed separately, whether or not a mental disturbance is associated with them. When an intracranial lesion is associated with mental illness, it is the mental illness which is diagnosed. In all mental disturbance, all known contributory etiologic factors should

ber, a "Psychotic depressive reaction" has been included, and the "Involutional psychotic reactions" have been afforded equal status with the other psychotic reactions by giving them a separate diagnostic grouping

The term "Somatization reaction" has been dropped in expressing the dichotomy of mind and body which it attempts to avoid. The generic term 'Psychophysiologic Autonomic and Visceral Disorders' has been selected because it seems best to express the interplay of psychic and somatic factors involved in this group of disturbances. In addition, in keeping with current thinking, these disorders are removed from the psychoneurotic reactions and given separate grouping to allow more accurate accumulation of data concerning them.

The psychoneurotic disorders have been classified on the basis of the dynamics of their psychopathology as it is understood today. This section is essentially the same as that utilized by the Veterans Administration and the Armed Forces Nomenclatures. Both are reported to have worked well in practice and to be superior to the present Standard Nomenclature for use by clinicians.

The disorders of personality pattern and the situational disorders (both groups are now tacked on the end of the nomenclature as though in afterthought) have been considerably elaborated and expanded. The need for this elaboration undoubtedly will be more clear to those in clinic and private practice than to those in mental hospital or institutional work. Psychiatrists today are called upon to see problems which ten years ago were handled by lawyers, ministers, or other family advisors. Diagnostic terms for the inclusion of these cases are sorely needed, and such terms are not clearly delineated under the present system of naming, which was devised some 16 years ago, when the major part of psychiatry was intramural.

Arriving at any sort of suitable names for the group listed as "Personality Pattern Disorders" and the subgroups thereof has been extremely difficult and is not too happily resolved. It is desirable to avoid the term "Character" because of its moral connotations. The term "Behavior disorder" is not suitable, because many of these disorders are characterized by extraordinarily acceptable behavior, in society's terms. The term "Personality disorder" is much too all inclusive, since all mental disorders are to some extent personality disorders. The generic term selected was arrived at by elimination.

The personality pattern disorders are divided into three main groups, with one additional grouping for flexibility in diagnosis (Isolated Habit Reactions). The division has been made on the

disturbance in the field of affect and judgment, if not in memory and orientation. Such disturbances, formerly diagnosed, "Mental deficiency, secondary," are here listed under the chronic organic reactions, where they seem more properly to belong. In these cases, when the disorder of intelligence seems to be the primary clinical problem, the diagnosis should be qualified with the phrase "Developmental intellect defect, mild, moderate, or severe."

In organic brain syndromes occurring in later life, and in which mental deterioration is the primary clinical concern, the diagnosis of organic reaction, chronic, may be modified with the word "deterioration," again stating whether it is mild, moderate, or severe.

The long used term "mental deficiency" has been dropped. Mental deficiency is a legal term, comparable with the term "insanity" and has no meaning in clinical psychiatry. Its meaning has been defined by law in England and in some parts of the United States. Also defined by law are the terms "idiot," "imbecile" and "moron." These, too, are highly unsatisfactory terms based on psychological testing, and in the borderline areas of each term there occur variations with the immediate condition of the patient, as well as with the skill and training of the examiner. These terms also have been dropped.

For those cases presenting clinically and primarily a disturbance of intellect, with no organic brain syndrome prenatally, at birth or in childhood (idiopathic mental deficiency), the diagnosis "Developmental Intellect Defect, General" has been retained. The diagnosis should be qualified as "mild," "moderate," or "severe," and the current I Q rating may be added. No I Q limit has been set for these qualifying terms, as it is believed that such arbitrary usage of a variable measure is not justifiable in clinical work. As it becomes necessary, one of the three general qualifying terms can be added to this diagnosis, as to all others ("with psychosis," "with neurotic manifestations," or "with personality or behavior disturbances").

Also included is the diagnosis, "Developmental Intellect Defect, Specific," for those specific learning defects (strephosymbolia, reading defect, etc.) occurring without known organic brain damage.

Under "Psychotic Disorders," schizophrenic reactions have been increased in number and type to allow more accurate and detailed diagnosis in this complicated group. Comments are particularly desired on the last six of these reactions, especially on the diagnoses "Schizophrenic reaction, schizo affective" and "Schizophrenic reaction, childhood type."

The "Manic depressive reactions" have been reduced in num-

Methods of Examination and Symptoms

PURPOSE AND SCOPE OF THE EXAMINATION

It is not too elementary to inquire, 'What is the purpose of a psychiatric examination?' The obvious answer, "to determine the condition of the mind," would be wrong. The purpose of a psychiatric examination is to determine the condition of the *individual* who is being examined, body and mind together, for they are one and inseparable.

To neglect either aspect of the examination would be to court disaster. If, let us say, the psychiatrist examined only the "minds" of patients who were suffering from brain tumor or paresis, it would take a long time to arrive at an opinion, and there is more than an even chance that the correct diagnosis never would be reached. On the other hand, if the examination followed the teachings of psychiatry, examining all of the man and not merely a dissociated part of him, it would not be long before the neurologic survey, the study of the eye grounds, the roentgen ray studies, the electroencephalogram, the examination of the blood and the spinal fluid, etc., would reveal that one of the patients has a brain tumor, another, paresis. Conversely, a patient may be in a stupor. Exhaustive physical examinations and laboratory tests may fail to find sufficient reasons for the stupor, or the somewhat lame and vague conclusion may be "toxic." If, however, there has been a thorough psychiatric examination, then the evidence of a benign, psychiatric stupor may be uncovered.

A psychiatric examination, like any other examination, begins properly with the taking of the history. As is the case in many other fields of medicine, psychiatry does not have enough instruments of precision to make it safe for the examiner to take many short cuts in obtaining the history. In itself, the taking of an accurate history may reveal diagnostic short cuts. For instance, the record of long-continued intravenous medication might suggest lues earlier in

basis of the dynamics of personality development, and there has been an attempt to list the diagnoses in an order which suggests the depth of the psychopathology. Thus, the "Intrinsic Personality Pattern Reactions" are more or less cardinal personality patterns. There is little room for regression in this group except into frank psychosis. The "Exaggerated Personality Trait Reactions" and the "Sociopathic Personality Reactions," when under stress, may at times regress to a lower level of personality organization and function without development of psychosis.

There will be a section containing definitions of most of the terms used in the Nomenclature and a section containing (1) general requirements for recording psychiatric diagnoses, and (2) suggested additional requirements for recording diagnoses in clinical charts. These two sections comprise a manual rather than a nomenclature, but it has seemed desirable to complete them at this time and to submit them for comment along with the diagnostic groupings.

Nomenclature and Classification is, and should be, in too fluid a state to determine levels, but at least the high water mark of extant thinking has been indicated. That concepts are changing is a sign of the vitality and the progressiveness of modern psychiatry.

It seems to me that there is urgent need for a sensible and modern *National Commitment Law*. As it is now, the procedure varies from state to state and in a few places an archaic method of trial by jury is still practiced. Furthermore, the present State commitment laws are valid only with the jurisdiction of the particular state in which the commitment has been made. Should a patient (even though he be violently and dangerously mentally sick) escape or in any way enter another state the previous commitment is nullified.

HISTORY OF THE PRESENT ILLNESS

From several reliable sources there should be obtained a careful chronologic account of the illness and the order of the appearance of the symptoms and their nature. It is important to scrutinize closely the onset. Usually an abrupt, stormy onset is more favorable prognostically than a gradual withdrawal from reality. The setting in which the onset occurred should be reproduced historically. Sometimes coincidental happenings just before the mental symptoms appeared are carried over into the psychosis and may impart to it a malignant aspect which need not render the prognosis unfavorable if the basic psychosis or psychoneurosis is promising in its outlook. A thorough description of any severe antecedent emotional traumata should be obtained and recorded.

PAST HISTORY

With the established fact of the essential unity of man in mind, the past history develops into a narrative account of the life experiences, some of them largely somatic, like infections and other diseases or traumata, others chiefly emotional disappointments, thwartings, deprivations, etc.—the totality of the individual's reactions to the "psychosomatic onslaughts and liabilities of life."

The past history covers a wide range and seeks to obtain data concerning birth and development, health record, school record, work record, interests, previous attacks, marital life, sex development and personality. It is important to remember that the nucleus of psychopathology, productive of symptoms in adult life, is formed in the early relationships of the child, with the mother, then with the parents, then as a unit in the family life.

As the result of the constant interaction between the individual and his environment there is developed something called *personality*. Personality cannot be defined exactly but it is the most important consideration in psychiatry and possibly in all human affairs. In one sense, personality at any given cross section of any person's life is the composite but exact record of everything that has happened in the life of that person and the individual's reaction to a great number of occurrences. Indeed, human personality is more than this, for the foundation layer of the structure of personality is derived from inheritance. Upon this layer, at first, during childhood, rapidly, and then, as the number of years increases more slowly, there are added innumerable layers consisting of physical characteristics (*habitus*), intelligence, emotional traits, helpful and harmful, including enthusiasms in constructive directions but also

life and indicate that the psychosis under scrutiny might conceivably be paresis. So, too, might a clue to paresis be furnished by a history of repeated miscarriages. A history of addiction to alcohol brings up the thought of an alcoholic psychosis. A history of frequent blank spells for which the patient is amnesic brings into the focus of consideration epilepsy and epileptic psychosis. A history of abruptly appearing, and as quickly disappearing, palsies, anesthetics, blindness, deafness, aphonia, etc., may point the way to hysteria. Innumerable examples of valuable information by benefit of history could be given.

THE PARTS OF THE EXAMINATION

It will not be necessary to give the details of a psychiatric history. It is much the same as in any field of medicine and has the customary subdivisions.

Chief Complaint

Present Illness

Past History

Family History

The particular character of mental symptoms makes it helpful to discuss and emphasize a few aspects of the history which are significant in psychiatry.

THE CHIEF COMPLAINT

An easy, natural way of beginning conversation with a patient is to say "What seems to be the trouble? Would you like to tell me about it?" This may elicit from the patient what is desired above all else—a spontaneous account of the illness.

The chief complaint is apt to be misleading, and one can scarcely expect to find as direct a relationship with the illness as in internal medicine when, for instance, the complaint of lancinating abdominal pain may be strongly suggestive of an appendiceal abscess. A mental patient may not have any complaints—"everything is fine"—and this might signify that the patient feels that his plans to kill his "persecutors" are proceeding nicely. The presenting symptom may be a headache, nausea, vomiting, vertigo or what not, and these symptoms may be the physical representation and expression of a hopeless marital problem.

A psychiatric history should be taken not only from the patient but also from the family and others who often can contribute important information.

man. He spends a great deal of time in thinking things over. He would like to have the social ease and graces of the extrovert but is handicapped by shyness, diffidence and reserve. In large social gatherings he is at a loss and is apt to retire behind a screen of inconspicuousness. His immediate emotional reactions seem to be shallow, but he may react very strongly at some trivial incident. It is the release of an accumulation of stored up feelings. He, too, is extremely important for society. His vision is long ranged. He may plan wisely for the future, among the benefactors of humanity are included many introverts.

All this represents much more than an intellectual exercise. It has very practical import. Among other things, if they should break mentally, extroverts are particularly liable to succumb to manic depressive psychosis, whereas introverts succumb to schizophrenia but by no means exclusively so. Thus the respective psychoses perpetuate personality traits which in themselves are not abnormal.

However, when an unknown quantity is added to marked extroverted or introverted personalities, psychoses result. In a general way, psychoses represent escapes from reality. In the accomplishment of this objective, the characteristics of personality stand out in bold relief. In manic depressive psychoses, the predominant psychosis of the extrovert, the patient gives the impression of attempting to annihilate reality, by charging aggressively against the environment, pushing everything out of his path, as though only he were important. The depressive phases, too, are not remote from the realities of life but are pathologic magnifications of normal sorrow, grief and inferiority feelings which are so common in the environment.

In schizophrenia, the psychosis of the introvert, the technic used by the patient in escaping reality is entirely different. It is a retreat. He gradually withdraws more and more from the claims of reality, ignoring them and eventually substituting for them a world of fantasy of his own making. If the environment seeks to intercept the retreat of the patient, he unconsciously utilizes the symptoms of schizophrenia to defend his pathologic "privacy." If pressed too hard, he may retire into a katatonic stupor in which he retains fixed (cataleptic) attitudes and is impervious to stimuli, even to the pain of the stab of a needle.

The personality is so dominant that it intrudes itself into the psychosis, and its markings may be traced in the clinical outlines of even the organic and deteriorating reactions such as paresis or senile dementia. In this statement is contained an important clinical lesson which never must be forgotten. Practically, it means that

biases, prejudices and intolerances, habits, interests, hobbies, drives and tendencies, energy, vocational and avocational pursuits, social adaptabilities and many other things

Obviously, personality is the most powerful driving force in the motivation of human behavior. It has somatic and emotional elements which are closely entwined. Many years ago the French clinicians undertook the task of studying man as to his physical habitus and skillfully delineated the "habitus apoplecticus." Stimulated by such contributions, thoughtful modern clinicians are engaged in the enormous labor of studying man in the markings of his physique with the objective of attempting to determine the relationships between physical build and measurements and vulnerability to various disease processes.

Psychiatry was not slow to act on this hint. It studied its patients intensively and was able to correlate physical characteristics with accompanying dispositional traits. Among the several types emerging from these studies, two are outstandingly significant for psychiatry: the pyknic and the leptic. The pyknic is well muscled, comparatively short in stature, somewhat short and thick necked, large in the thoracic, abdominal and other girths and, in general, has adequate cardiovascular apparatus and is dynamic in the activating endocrine glands, notably the thyroid and the pituitary. The leptic is somewhat 'asthenic,' more or less suggestive of the "tubercular" make up. The leptic tends to be a 'long fellow,' prominent in his longitudinal measurements, poorly muscled, deficient in rotundity and girths, usually long necked and thin necked and all in all, somewhat spindly. The heart is apt to be relatively small, the cardiovascular apparatus not too adequate, and the energizing glands of internal secretion not strong in their functioning.

Roughly at least, there are corresponding traits of personality and disposition. Pyknics tend to be 'extroverts,' predominantly 'outgoing' people. The extrovert is the social, active, energetic man. He does not spend too much time in reflection and is eager to translate thought into action. He enjoys the companionship of his fellow men and has strong social proclivities. He is the 'hail fellow well met' and the life of the party. Usually, he is a fluent conversationalist. His emotional reactions are strong and momentarily moving but not very deep. It must not be inferred that he is not a useful and valuable member of society. He is. He gets things done. Among other things he may be the high pressure type of executive.

Leptic types, diametrically opposed to the pyknic in personality as well as physically, tend to be 'introverted,' predominantly "in-growing" people. The introvert is the relatively unsociable, inactive

ent in all the psychoses, organic, toxic and functional, and all the psychoneuroses

The history should include some information as to the first conscious awareness of sex and, if possible, how and when it was encountered, and how much preparation there was for it, during childhood, the attitude in the home environment regarding sexual information, evolution of sexual interest, sexual pace, physical factors, including the menses, their inauguration and the preparation for their appearance, sexual fancies and fantasies, sexual dreams, auto eroticism, homosexuality and other deviations. The attitude toward marriage and the loosening of parental bonds and the viewpoint about children should be noted. The age at marriage and the age of the partner are important, as also are attitudes toward pregnancies and contraception, conflicts aroused by this practice, and the physical and mental states during pregnancies, childbearing and the puerperal period. The physician should have an idea concerning the disappointments, frustrations, difficulties and satisfactions of the married life. These are only a few guides to the taking of the sexual history.

FAMILY HISTORY

There is some advantage in deferring the taking of the family history until the rest of the history has been given. Families are intent upon the account of the present illness and, at first, are hesitant about revealing family skeletons. The family history should include an account of serious morbidities, somatic and psychic, in the direct and collateral ancestry and family. The psychiatrist is much interested in the occurrence of psychoses and psychoneuroses, suicide, mental defect, epilepsy, alcoholism, drug additions and many other conditions. Sometimes, the family history is directly helpful, as for instance if the patient is a child and there is lues in the parentage (juvenile paresis?) or when there is elicited a record of inheritable types of epilepsy and mental defects and sometimes manic depressive psychoses.

A psychosis or psychoneurosis in a parent is very likely to lead to imitation by a child, which may be carried into adult life.

It is important, too, to have the picture of the interpersonal relationships of the family life—the likes and the dislikes toward each other and the frictions which exist. Is the home reasonably peaceful and relaxing or is it a verbal and sometimes a physical battleground?

not only the psychosis but also the individual having the psychosis must be considered. In each psychosis a certain segment of the clinical picture is due to the underlying pathology—organic, toxic, or functional. The clinical coloring of remaining segments is conditioned by the previous personality of the patient. For instance, in senile psychoses, the gross failure of recent memory and other defect symptoms are derived from the structural brain pathology, but the different types of clinical expression, such as depressed or

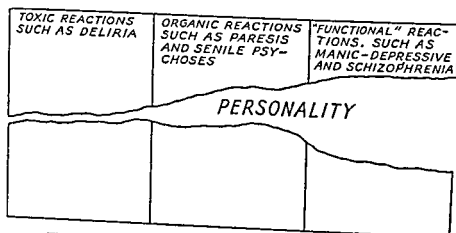


FIG. 6. Influence of the personality upon the clinical pictures of various groups of psychoses.

paranoid, are influenced more by the previously existing personality traits.

In discussing the composition of the human personality, sex has not been mentioned. In psychiatry, sex is so important and its implications so far-reaching that it deserves particular mention and emphasis. Therefore, it is always a significant part of the history.

Someone once said to me, "Why is sex so important? It is a natural function, and there should not be any trouble about it. Pigs have a sex life and are not upset by it." The answer is obvious—"Human beings are not pigs."

In the course of human evolution, sex has had a long and checkered career. While, no doubt, in primitive man it was "more natural," as it probably is among savages today, yet, very early, taboos were added. Modern civilization and culture have imposed many layers of veneering upon sexual life, chiefly due to the unavoidable deterrents of complete sexual satisfactions, involving children, home-building, etc. Also, there is a large factor of sexual psychopathology. Here are only a few of the many reasons why the history of the sexual life must be reasonably complete. Its importance and clinical value are obvious from the very large sexual clinical segments pres-

satisfactory mental examination is contained in the patient's own, spontaneous account. Later on it is easy enough to fill in the gaps by tactful questioning.

Possibly because they are somewhat nonplused by a new experience and therefore rather ill at ease, some students of psychiatry assume a stern and even judicial attitude toward the patient. A friendly contact with patients, good rapport, is the favorable setting for satisfactory examination results.

Observe carefully. Frequently, the more valuable impressions are gained by observation, without overmuch questioning.

Gauge the emotional life as accurately as possible. It is the most significant part of the examination.

Sometimes, students, even graduate students assigned to examine a patient return and report that the examination could not be made since the patient was "not co-operative." Usually they mean that the patient will not answer questions. Actually the non-co-operative phases of mental illness yield very fruitful information. The examiner may observe the patient and note his posture and muscular activity. He may perform various tests—reflexes, pain stimuli, blood pressure, etc. In fact, the yield of observational data is so rich that it may lead to authentic diagnostic impressions.

No matter how skillful and thorough the examination, it has little value unless it is carefully recorded. Therefore, as soon as possible a permanent record should be made.

In this machine age there is a tendency to become too dependent upon instruments of precision. It would be unfortunate if the sharpness of clinical observation should become dulled through disuse, as has our sense of smell. Good psychiatrists always have been keen observers.

The mental examination may be divided under the following headings:

- 1 General appearance and behavior
- 2 Stream of thought and speech activity
- 3 Content of thought and preoccupations
- 4 Mood (emotions, affective reactions)
- 5 Sensorium and intellectual reactions
- 6 Insight
- 7 Special examinations

GENERAL APPEARANCE AND BEHAVIOR

It is amazing how much psychiatric information may be gained without asking questions but merely by looking at patients, not

PHYSICAL STAGE OF THE PSYCHIATRIC EXAMINATION

No conscientious physician would think of treating a patient without informing himself as accurately as possible concerning the physical status. It is an expected procedure, and often during its performance considerable information concerning the patient's mental condition may be acquired. It is unnecessary to repeat the details of a physical examination; they are well known to all physicians. The physical survey should be inclusive enough to embrace the many somatic conditions that may occur in psychiatric patients. There should be a thorough general physical examination, including the examination of the central and peripheral nerve systems and the endocrine apparatus. In addition to the usual clinical laboratory examinations of the urine and the blood, many other laboratory tests are often indicated. Wassermann study of the blood and, if needed, the spinal fluid, the basal metabolism, blood chemistry, roentgenograms, electroencephalograms and cardiograms, tests for various exogenous toxic substances such as lead and bromides, tests for kidney and other organ capacities, etc. Physical and laboratory examinations may be reasonably brief or they may require much time. The situation may be covered by stating that whenever any examination at the somatic level may be helpful in explaining important etiology and symptoms, then such an examination should be made.

The physical examination may produce helpful diagnostic evidence: aortitis and other signs of lues or neurologic pupillary reactions in paresis, the clear cut neurologic picture of polyneuritis in Korsakoff's syndrome, exophthalmos and a high basal metabolism in hyperthyroidism, a coarse relatively infrequent brain wave graph in epilepsy, catalepsy in schizophrenia and many other similar leads.

MENTAL STAGE OF THE PSYCHIATRIC EXAMINATION

It is not at all difficult to make a mental examination, but the beginner will be helped by a few suggestions garnered from experience.

Having been warned in advance that the large area of possible mental symptoms must be covered, the beginner may equip himself with a long list of questions and insist that the patient give categorical answers to the questions. Are you sad? Irritable? Suspicious? How much is 6 x 19, etc. This is a mistake. A great many patients are quite willing to talk. *Let the patient tell his story.* The most

sistance is marked, or it may contain a large element of suggestibility with catalepsy, cerea and automatic obedience in which the patient cannot refrain, for instance, from protruding his tongue when told to do so even though he has been warned that a needle will be thrust through it. For some patients, the stupor is symbolic of death, while emergence from it is interpreted as rebirth.

These are only a few of the symptoms which are available to the keen observer

STREAM OF THOUGHT AND SPEECH ACTIVITY

Like the blood stream, the stream of thought flows without cessation. In waking life and in sleep, in its conscious, subconscious and unconscious components there is unceasing mental activity.

In teaching, I have compared this section of the mental examination with the general survey of the circulation in a physical examination. Here one thinks in terms of gross disorders, for instance, its pressure, too much or too little, etc. So, too, in the stream of thought, we are first interested in marked disturbances. A fair comparison, also, may be made between the respective driving forces, for the circulation—the heart, for the stream of thought—the emotions.

Before estimating the abnormal in thought and its verbal expression, it must be remembered that within the area of normality there is very wide latitude. For instance, normal fatigue lessens thought activity, decreases the richness of association of ideas and impedes facility of thought expression. Mood or emotion in normal as well as abnormal mental life acts as a thought accelerator or brake. In a "normal" blue spell the thoughts do not come quickly and easily. Nor can they be fluently expressed or turned readily into pleasant channels. On the other hand, when the individual feels particularly well and happy, his thoughts, lubricated by his good emotional state, flow easily and smoothly, they find without difficulty a wealth of associated ideas which are expressed fluently. Finally, the associations are pleasant and not melancholy.

It is well to remember that, as in so called "normals," psychotic and other patients frequently employ speech to conceal rather than to reveal the inner thinking. This is a good place too to emphasize that in normal mental life, all the symptoms of psychoses and psychoneuroses are frequently exhibited in miniature.

In actual mental disease alteration in thought and speech are apt to be marked and sustained. For instance, in the manic phase of manic depressive psychoses the rapidly shifting vane of the patient's emotions place his thoughts at the mercy of every external and

only casually with the physical eyes, but intently with the mind's eyes. Here is a partial list of what may be learned: the general appearance of the patient, his clothing, whether it is neatly worn or disorderly, the hair, whether it is well groomed or mussed, the facial expression, the speech, the attitude and the posture, the amount of motor activity, whether rapid or slow, purposeful, entering into close contacts with the environment or aimless and detached. In these considerations and others, there are more reliable criteria of the true emotional state than in any amount of verbal activity. Many special symptoms are available to observation.

Negativism An apparently automatic muscular resistiveness on the part of the patient to every motor manipulation made by the examiner. Often this is definitely manifested when the examiner pushes up the eyelids and immediately encounters a strong downward pull. The clinical area of negativism is now much broader—retention of urine and feces and, in a general way, pathologic resistance against any approach from the environment.

Mannerisms Motor mannerisms are odd, repetitive and bizarre ways of performing ordinary functions, for instance, facial grimacing or tapping toe and heel on the floor at every third step or even deeply salaaming by bending the body into a half circle.

Catalepsy A muscle symptom in which the limbs may be placed into awkward and difficult positions which may be maintained by the patient for considerable periods of time, sometimes seemingly beyond the average limits of physiologic endurance. When the catalepsy is extreme, it is designated *cerea flexibilitas*, indicating that there is imparted to the examiner an impression that the limb is apparently made of wax.

Catalepsy may be produced in cats and birds by the injection of bulbo-capnine. Psychologically, animal experimentation suggests that perhaps catalepsy is related to human perplexity and frustration. When the operation of apparatus is switched, so that instead of the expected pleasurable stimulus like food, there is an unpleasant or painful response, such as electricity, then the mice or the pigs may become cataleptic.

Echopraxia The motor parallel of echolalia is echopraxia. In echolalia the patient seems to imitate automatically the remarks of the examiner, in echopraxia he mimics his gestures.

Stupors Psychiatric stupors are rich veins for observational explorations. In "benign" stupors the patient seems to be in a state of suspended animation, apparently without emotion, thought, or feeling. In "katatonic" stupors there may be very little reaction even to severe stimuli. The stupor may be 'resistive,' in which muscle re-

lacking external connections or appearing as discrete islets in the stream of the thought *Neologisms* may appear, particularly in schizophrenia. They are "new unrecognizable words or phrases which have significance in the fantasy life of the patient. One of my patients often mentioned the "dartleroid," which he explained was a thought-collecting machine.

MENTAL CONTENT AND SPECIAL PREOCCUPATIONS

In a diagnostic examination, it is not sufficient to form a general idea of the circulation, its adequacy, pressure, etc. It is important to look for abnormalities in the blood itself, in its coloring, in the number and the pathology of the red and the white cells, blood platelets, alien toxic substances, perhaps even blood stream infections. So, too, in a mental examination, it is not enough to determine such things as the volume and the rate of the flow of the stream of thought and speech. Here, too, will be found many abnormalities and distortions of thinking. In mental disease, there are frequently illusions, hallucinations, delusions, ideas of reference, obsessions and compulsions.

Illusions are sensory deceptions. They are not at all uncommon in everyday life. Frequently, we mistake strangers for friends because of some casual resemblance. At night alone in the house, or perhaps in a forest, there are ordinary sights and sounds which seem to be threatening, a prowling cat is mistaken for burglars in the house, the limbs of a tree for a skeleton, the soft rustle of leaves, for a beast of prey. It is important to understand that these sensory deceptions or illusions occur readily because of a state of tense, emotional expectancy which produced the necessary and favorable setting for misinterpretations of sensory evidence. This is a good time to learn the lesson that in all the aspects of normal and abnormal mental life the emotions are dominant.

In the psychoses, illusions have a wide distribution, appearing in practically every form of mental disease. In delirium, for instance, delirium tremens, the shape of the bedclothes may appear as vicious animals and snakes from which the patient cowers in abject terror. In many psychoses, notably schizophrenia patients may hear slight noises in the radiator which are interpreted as the deriding and threatening voices of their "enemies," or a shadow on the wall may be the Virgin—a sign from God of an "important mission" in life. "Normal" illusions can be corrected by the presentation of logical proof when the person is in a calm, emotional state. In the mentally sick, illusions are not corrected, and, no matter how overwhelming

internal stimulus. He may start to think and speak about something (goal idea), but at once a chance sight or sound or a distracting inner thought turns thinking and speech in this direction or that. This continues, jumping hither and yon, far afield from the original thought, never reaching a completion. This is called *distractibility*. Sometimes the distractibility of thought reaches such an extreme degree that it may suggest a delirium. Then it is called *flight of ideas*.

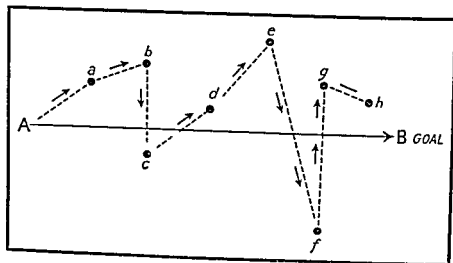


FIG 7 Flight of ideas A, a thought B, the objective or goal of the thought, a, b, c, d, e, f, g, h, represent external and internal stimuli or distractions which turn the stream of thought in this direction and that, so that the thought never is completed

In the contrasting phase of manic depressive psychosis, acute depression, the thoughts become sluggish and are expressed with the greatest difficulty. This is *retardation*. As to volume of speech in depression, there are very few words, and usually replies are monosyllabic. Obviously, there is a dearth of associated ideas (poverty of thought). The stream of thought may become so impeded that it seems to stop altogether, and the patient becomes mute.

There are many other thought and speech symptoms. The patient may be repetitive and garrulous. This is often an early symptom of senile psychoses and is seen typically in the traditional bore of clubs, who endlessly repeats the same stories. In various confused and deteriorated reactions, the disordered and impaired mental states are revealed by the rambling speech. In delirium there is incoherence. In a study of the speech, particularly in schizophrenia, the thoughts may be irrelevant or they may be scattered and dissociated,

SYSTEMATIZED OR FIXED In systematized delusions, the premises of the delusion are logical and closely interlocked, one following another in a well-sustained argument. The delusions are strikingly systematized in true paranoia, moderately well systematized in well-developed "Paranoid Conditions" and Alcoholic Paranoia and, for a time, fairly well systematized in the paranoid type of schizophrenia.

UNSYSTEMATIZED Unsystematized delusions are usually transient, and the premises of the delusional argument are very poorly connected. They may occur in practically all the psychoses.

GRANDIOSE Grandiose delusions concern beliefs of enormous personal physical and mental powers or vast possessions or of being a great personage or deity or having a "divine" mission ("stronger than a thousand strong men", the "greatest of all inventors", the "richest man who ever lived," etc.) Grandiose delusions are usually unsystematized and occur chiefly in paresis, the manic phase of manic depressive psychosis, and paranoid schizophrenia.

DEPRESSIVE AND SELF-ACCUSATORY In these delusions the motif is self belittlement, shame, mental misery and self blame so that the patient may beg to have his sufferings ended by death or asks to be stoned publicly or he awaits in trembling fear and terror the "just" expiation for the "unpardonable sin" by some horrible method like being slowly burned to death. These delusions are seen chiefly in the depressive phase of manic-depressive psychoses and involutional melancholia.

PERSECUTORY Persecutory delusions may be systematized or unsystematized. The persecutor may be a single individual or a group or organization (the Catholic Church, the Masons, the Government, etc.) Vague and fragmentary paranoid "delusions" may occur in any psychotic reaction. In the order of the thoroughness of systematization, persecutory or paranoid delusions are prominent in paranoia, paranoid conditions, paranoid schizophrenia.

HYPOCHONDRIACAL AND SOMATIC There is a wide range from vague complaints of hypochondriacal sensations to gross somatic delusions ("no stomach," "brain made of sawdust," "no insides, nothing but a hollow cavity"). These delusions are apt to be encountered in involutional melancholia, the depressed phase of manic depressive psychoses, paresis, schizophrenia, senile psychoses and in certain epileptic psychotic states.

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the proof, the patient is not convinced and, indeed, may scornfully or angrily reject the evidence

Hallucinations, like illusions, may involve all the senses—sight, hearing, touch, smell, taste, including also muscle joint (position) and vibratory senses. The distinction between illusions and hallucinations is somewhat artificial. In illusions, it is clear enough that there is a starting point or sensory stimulus. The noise or the shadow or the odor can be heard, seen or smelled by those who are not mentally sick. The patient misinterprets and identifies "voices," the Virgin, or a noxious vapor. It is assumed that in the hallucination there is no initial sensory stimulus. It is difficult to be certain that there has not been a sensory stimulus. For instance, the "feeling" of a patient that there is a rat in her stomach, at first glance would seem to be completely devoid of sensory stimulation. Yet, it may well be that it is a misinterpretation of peristaltic sensations.

Like illusions, again, hallucinations are widely distributed in psychotic territory. In fact, with the exception of true paranoia, hallucinations may occur in every psychosis. They are extremely common in all toxic psychoses and schizophrenia, they are rarer in manic depressive psychoses.

Delusions At first consideration, it would seem exceedingly simple to recognize delusions. If a patient pulls down a forelock of hair, puts his arm across his chest and states and *believes* that he is Napoleon Bonaparte, it is obviously a delusional belief. Nevertheless, in the sane world, there are maintained false opinions and beliefs almost equally gross. Many of them are held and vehemently defended by great numbers of people. For instance, even in the face of incontrovertible proof to the contrary, including the demonstration of the bacilli and other organisms of disease, Christian Scientists insist that there is no disease—"only error." Sometimes some physicians subscribe to etiologies and therapies which are obviously erroneous. So, in human beings there are vast differences of opinion, in religion, in politics, in regard to the length of women's skirts and, in fact, in anything and everything. Furthermore, both in erroneous beliefs accepted as nondelusional and in the delusions of mental disease, there may be seen the controlling hand of the emotions. Mistaken beliefs and delusions are founded in bias, prejudices and intolerances often inculcated during childhood. "No man is happy without a delusion of some kind—delusions are as necessary to happiness as realities" (For illustration of the probable mechanisms underlying delusional formation, see Fig. 10.)

Many types of delusions have been described

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This is only a partial list of delusional types, there are many more. The subject matter may involve anything upon, beneath or above land and sea. Once I had a patient who begged not to be taken outdoors, since she was "a very small grain of dust" and would be blown away by even the gentlest breeze. Another patient was the "Great Planetary Force" directing and controlling the revolution and the activities of the earth and all the planets.

Ideas of reference are often a component of delusions of persecution, sometimes, in depressions, they are symptoms in which the patient feels that even the most casual and chance incidents and happenings refer to him—a lifted eyebrow, "a look," a shrugged shoulder, a cough, a smile, ordinary conversation, a radio announcement, in fact anything at all may be interpreted as warning, derisive or threatening. Naturally, ideas of reference are more common in the psychoses where the delusions are persecutory and paranoid, the various paranoid reaction types including paranoid schizophrenia. However, they also occur fairly frequently in depressive phases of manic depressive, in the involutional psychoses and in the toxic psychoses, notably those of alcoholic origin.

Obsessions and Compulsions This is the area of "must" thinking and behavior. These symptoms express a domination of the mind and the personality of the patient by thoughts which cannot be put out of consciousness. They may or may not be translated into behavior which the patient cannot inhibit. For instance, an intelligent cultured gentleman could not inhibit his behavior in response to the number '13,' even though, intellectually, he recognized its absurdity. He remained in bed on the thirteenth and the twenty-sixth days of each month, hopped over every thirteenth step, counted the words in the conversations of his friends, feeling a "nervous chill" at each thirteenth word, he would not walk in a certain district because of an electric sign "Peter Robinson" (thirteen letters), etc.

Obsessions and compulsions have something in common with human superstitions which lead far back into the experiences of our species, far beyond the dawn of recorded history. It will be recalled that children on the way home from school often play a game of not stepping on cracks in the pavement, and dire calamities are predicted for the child who does step on a crack.

Obsessions and compulsions may be observed in many psychotic reactions, perhaps chiefly in schizophrenia, but they are typical of obsessive compulsive neuroses.

There have been mentioned only a few of the many reactions which may be uncovered by noting the verbal output of patients.

The emotions may be innately incapable of more than a very limited function as in mental defect (feeble mindedness) The destruction wrought by structural brain pathology deteriorates permanently the emotions and limits markedly their range and expression This is the situation in all the deteriorating psychoses, irrespective of the cause of the deterioration trauma, senility, cerebral arteriosclerosis, paresis gross brain and nervous diseases like tumor, Huntington's chorea, epilepsy, and so forth In psychoses of exogenous and endogenous derivation, the emotions are labile as may be witnessed readily in delirium as they are, also, in much less degree, in the manic phase of manic depressive psychoses In the "intellectually logical" reactions like paranoia and high grade paranoid conditions, the emotional reactions are strong and intense and in keeping with the content of thought This may be true, too, but on a lower level, in paranoid schizophrenia In the depressed phase of manic depressive psychoses and in uncomplicated reactions of involutional melancholia, the depths of depression and mental suffering may be plumbed It is a mistake to speak of the emotional reactions in schizophrenia as "dementing" Judged by the criteria of everyday living they do seem to be insufficient, inadequate, not in keeping with the thought content, seemingly there is apathy, but beneath the surface they may be absorbed in an inner and rich fantasy life In the psychoneuroses, there is apt to be severe tension and anxiety, but in conversion hysteria, once the underlying conflict has been converted into the presenting signs and symptoms, emotionally the patient is relatively undisturbed and regards the symptoms without much emotion

SENSORIUM AND INTELLECTUAL REACTIONS

During waking life, human beings are so habituated to a satisfactory functioning of the consciousness that we do not remember how commonly the sensorium is disturbed and the threads of consciousness that place or orient us in the environment are loosened or even broken Sleep normally and periodically interrupts consciousness Fever, exogenous or endogenous toxicity, deteriorations usually due to brain pathology, even fatigue, may make us less alert and secure in relation to the environment as to person, time and place Loss of such orientation is called *disorientation* Human beings maintain their positions in space through the stimuli of the senses—vision, hearing, touch, smell, taste, muscle joint and vibratory senses, and, even more important, the integrity and the vigilance of consciousness in appreciating and interpreting correctly the messages of the sensory stimuli In some degree consciousness

and orientation are disturbed in all organic and toxic psychotic reactions. In manic-depressive psychoses there is comparatively little disturbance, excepting in the hypermanic phase and stuporous depression. In general, the disturbance is more marked in the depressive than in the overactive phases. In schizophrenia, the apathy usually does not signify disturbances of sensorium and orientation. The patient seemingly is bored, indifferent, listless as to the concrete happenings of the work-a-day world, absorbed in his fantasy world; but, as is frequently demonstrated, consciousness and orientation are more inactive than they are impaired.

Memory. The dependence of memory functioning upon the energizing effect of the emotions is illustrated by this quotation from Edwards: "The secret of good memory is attention, and attention to a subject depends upon our interest in it. We rarely forget that which has made a deep impression on our minds."

Memory may be divided into remote, intermediate and recent. Memory naturally is transiently lost in all severe toxic reactions; it is lost permanently in organic deteriorations, particularly recent memory. In the depressive phases of manic-depressive and the severe manic reactions, memory is faulty. In schizophrenia the memory seems to have been suspended, but, as is frequently demonstrated by schizophrenics, an amazing amount of material is not lost from memory but merely held in abeyance.

There are interesting and important special memory disorders like *amnesia* which is a memory gap involving usually a limited time span. There are organic amnesias such as may occur in head trauma, but more striking are the functional amnesias, in which the remembrance of the happenings during a certain time period are blotted from memory because they cannot be remembered by the personality without too great distress and anxiety. I saw a woman who was completely amnesic in regard to a confession of illegitimate pregnancy that her daughter had made to her a week before.

In Korsakoff's syndrome, which may occur not only in alcoholic polyneuritis but also in senile psychoses and other conditions, there may be *falsification of memory*. The patient weaves into the present events that presumably happened in the past. For instance, a polyneuritic patient who has been confined to bed for many months will speak of "last" night, the night clubs he visited, the friends who were with him and many details of a "wild night."

There are many other functions and capacities which often should be tested: retention and recall, by special testing; counting and calculation; writing, spontaneous, by dictation and copying; atten-

tion, general schooling, and knowledge of current events. In making these examinations, it must be kept in mind that they must not be above the educational level of the patient.

INSIGHT

Insight is important and is often a gauge of the likelihood of recovery and its integrity, if it occurs. Insight is the capacity of the patient to look at himself and his symptoms and understand, at least partially, that he is mentally sick. To some degree, he sees himself as others see him.

SPECIAL EXAMINATIONS

In many situations, special examinations and tests, such as psychometric tests to determine intellectual level, word association, Rorschach, schematic apperception, Pentothal Sodium or Amytal Sodium interviews, hypnosis, dream analyses, etc., are indicated.

FORMULATION OF FINDINGS

Formulation After the examinations have been completed there should be a *formulation*, which is a synopsis of the positive findings, the diagnosis, the prognosis and the plan of treatment.

SAMPLE FORMULATION

A. B. is a married woman 51 years old, whose husband is living. They have three children: a son age 27, two daughters, 23 and 20 years old, respectively. The younger daughter is mentally defective, subsequent to head injury at birth.

The maternal grandfather had manic depressive psychosis, having a severe depression at 25 followed by a short lived period of excitement. In a recurrent depression at 28, he committed suicide. One maternal aunt has been in a State Hospital many times since the age of 30 for severe attacks of manic depressive. The patient's father was mildly alcoholic.

The patient's mother was dominant and rarely displayed any affection for her daughter who was 'passionately' devoted to her father.

As a child and in early adult life, the patient was active, "filled with energy," social, executive and very conscientious.

She married at the age of 22, but the marriage has not been a happy one. The husband is introverted and not very social. Only rarely could he be persuaded to "go out" socially. Apparently, hus

band and wife were not well mated sexually Sexual relations became less and less frequent and ceased two years ago

For the past five years the patient has become increasingly interested and busy in various philanthropic and civic movements and was efficient in executive capacities

It is likely that there were several "affairs" with men she met in the work she was doing Often she voiced her admiration of "intelligent, social men."

This illness began about three months ago Rather suddenly, she discontinued most of her interests and resigned from the organizations She complained of feeling very tired and of headache and backache and desired to be alone Gradually, she became depressed, spoke of herself in belittling terms, became restless and occasionally agitated She complained of many physical sensations and went to a doctor to find out if she had a "blood disease" She began to speak of herself as a "bad woman" and, finally, made a suicidal attempt by slashing both wrists with a razor blade Then she was brought to the hospital

The symptoms mentioned have remained, and there has been added the somatic delusion that her throat is sealed She refuses food and has to be fed artificially She sits for hours rocking back and forth and moaning "I've sinned I am lost"

Physically, the patient is considerably underweight There are two infected teeth Pelvic examination reveals unrepaired lacerations of the cervix and an endocervicitis There is a secondary anemia, 3,000,000 red cells and a hemoglobin of 70 Estrogen studies indicate deficient ovarian secretion The menstrual periods ceased four months ago and were irregular and scant for the year preceding

Impression. It is likely that this is an involuntional melancholia favored by an inheritance factor and by an unsatisfactory marital situation Efforts at compensation were not satisfactory, and it is probable that the strong self accusatory trend is related to several extramarital sexual experiences The onset of the climacteric with its physical and psychological hazards probably further lessened resistance, and the patient was overwhelmed with the impossibility of retrieving her mistakes in life The early unsatisfactory child-mother relationship is an important factor

The prognosis is fairly good

Treatment Plan. When the patient's condition permits, the infected teeth should be removed and, eventually, the cervix repaired with probably a dilatation and curettage Ovarian and vitamin therapy are indicated The patient should be given a full rich diet

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Organic Psychoses

Usually, the viewpoint concerning the organic psychoses is too restricted. Commonly, it is erroneously assumed that all symptoms are due to pathology of brain tissue. Actually, the clinical picture in any given patient is due to three pressures: (1) the neuropathology, (2) the intrusion of previous personality traits, (3) the pressure of the environment. Occasionally, the family of the patient errs in the direction of letting 'the poor soul do just as he wishes, after all, he has nothing to live for.' More often, there is impatience and irritability and a demand for more conformity than the worn out brain can give or even understand.

There have been presented in the previous chapters discussions of the importance of psychiatry, the etiology of mental diseases, classification, and methods of examination and symptoms. Wherever an opportunity was available, it was utilized to present segments of the clinical pictures of the various psychoses from these several angles. It seems to be the more natural way of pursuing the subject. It remains to fill in the details which have not been given, and this will be done in a series of brief synopses.

The determining factor in the organic psychoses is structural pathology of brain tissue. The keynote of symptomatology is progressive deterioration of

A MENTAL CAPACITY Defects in memory, retention, orientation, general information and judgment with a decided tendency to irreversible mental deterioration, at least as far as those symptoms which depend on the brain pathology are concerned.

B EMOTIONAL STABILITY Quick mood shifts, outbreaks of irritability, weeping or elation with very slight provocation.

C BEHAVIOR Deterioration of personal habits, decline of ethics, moral offenses.

D DECREASED TOLERANCE TO TOXIC AGENTS Small amounts of alcohol and drugs tend to produce confusion and delirium.

The prognosis in the organic psychoses is poor, but thoughtful and skillful management favors partial remissions and certainly improves the general condition and attitude of patients.

There should be careful hospital and nursing care with precautions against suicide. Electroshock therapy should be considered, as it is likely to be helpful. As the patient improves, occupational therapy should be helpful; as soon as possible, simple, reassuring psychotherapy should be pursued. After the patient recovers, an effort should be made to secure a reasonable adjustment of the home situation. The possibility of deeper psychotherapy should be carefully considered at the appropriate time.

lence, speech defects, insomnia, defects of judgment, fatigability, digestive upsets, visual disturbances, headache, rheumatoid pains. A convulsive seizure may be the initial clinical sign of paresis. A convincingly neurasthenic and hypochondriac clinical picture may be an early manifestation.

Mentally, there are distinguishable certain clinical types, not sharply delimited: *dementing*, about 40 per cent, with all the earmarks of a progressive, organic dementia, *depressed*, about 25 per cent, showing depression and gross somatic delusions, *expansive*,

PARESIS

SEROLOGY	NEUROLOGIC SYMPTOMS	MENTAL SYMPTOMS

FIG 8 The relative importance of the serology, the neurology and the mental symptoms in the diagnosis of paresis

10 to 25 per cent, grandiose delusions, euphoria easily shifting to irritability, motor overactivity and aggressiveness, *agitated*, 10 to 15 per cent, marked psychomotor activity with clouded consciousness, which may be so severe that the designation "galloping" is justified. It may lead to rapid exhaustion and death.

If untreated, the dominant dementia becomes more profound, eventuating in the complete deterioration of mind and degradation of personality.

Treatment Tryparsamid, mechanical fever therapy and other treatments are advocated by some authorities, but we feel that the most satisfactory treatment is malarial therapy followed by neoarsphenamine and then by alternating courses of Tryparsamid and bismuth salicylate. Penicillin therapy is occupying an increasingly more important role in the treatment of paresis (see later).

CONTRAINDICATIONS TO MALARIAL THERAPY "Galloping" paresis, severe systemic diseases, diabetes, nephritis, hepatitis, active tuber-

E BRAIN PATHOLOGY The gross and microscopic brain pictures in the organic psychoses are now so extensive that it would not be feasible to reproduce them here. The student should familiarize himself with them in one of the excellent textbooks of neuropathology. In general, there is disarrangement of cyto architecture and destruction of functioning cells and tissues, pathology of the arterial tree and the tissues supplied by the blood vessels and, of course, such high points as the identification of the spirochete in the brain of paretics, senile plaques in the senile psychoses, extensive cortical atrophies in some of the presenile deteriorations, etc.

The most common organic psychoses are general paresis and the senile psychoses.

GENERAL PARESIS

About 25 per cent of lues eventuates in neurosyphilis, and about 5 per cent of neurosyphilis is paresis, a parenchymatous form of neurosyphilis.

Etiology The direct cause is always the invasion of the brain by the *treponema pallidum*. Predisposing factors have not been fully identified. Under suspicion are the following: a neurogenic strain of the spirochete, alcohol, head trauma, the stress and artificiality of modern civilization. Paresis usually does not appear until ten or more years after the initial infection, it is more common in males with the incidence peak in the fourth and the fifth decades. Juvenile paresis begins in the first or the second decade.

Symptoms and Diagnosis The serology is decisive—blood and spinal fluid show strongly positive Wassermann tests in all antigens, lymphocytic pleocytosis, positive globulin, “steppage” gold curve.

The neurologic signs are usually helpful and often conclusive. These are irregular, unequal or Argyll Robertson pupils, increased tendon reflexes, particularly patellar, tremors of the hands and around the mouth and nasolabial folds, slurring speech, convulsive seizures, “flat” facial expression, transient eye muscle palsies, tremulous handwriting, positive Romberg, shuffling gait, absent knee reflexes (in taboparesis), flushing cyanosis, fainting, brief aphasias, weight loss, bed sores, etc. Unless halted by treatment there is rapid progression to a final state of emaciation and bedridden paralysis.

Because of the therapeutic and protective value of prompt diagnosis the early symptoms as described by Bunker are especially significant. In the order of frequency they are irritability, bradypnoea, character changes, weight loss, memory lapses, somno-

siderable degrees of improvement, often amounting to adjustment at a satisfactory occupational and social level

In regard to penicillin therapy there are two schools of thought one believes that penicillin alone is effectual, the other feels that it should be combined with malaria. In mild cases of paresis with only slight deterioration and no marked psychotic symptoms, penicillin alone, in dosages of 10,000,000 units, 300,000 units twice daily for two weeks, is often effective. For severe cases, penicillin should be combined with malaria either together or in separate courses. However, Dattner, at Bellevue, and others apparently have obtained good results from penicillin alone. Spinal fluid reversal is quite frequent under penicillin treatment, but clinical symptoms do not always parallel the reversals. In tabes, penicillin is less helpful than in paresis, although at times it does favorably influence the pains and incontinence. It does not seem to be of any help in optic atrophy, cerebral vascular lues or leutic meningomyelitis. Of course, the place of penicillin in the treatment of early lues is well established.

SENILE PSYCHOSES

Medical success in lengthening the span of human life has greatly increased the old age population. It has become an important political, economic and social problem.

The senile psychoses are progressive mental deteriorations determined mainly by old age and attendant brain pathology.

Etiology. Destructive brain pathology conditioned largely by cerebral arteriosclerosis with probably toxic and hereditary influences. It seems likely that physical (fractures) and infectious diseases, any illness requiring long periods of bed treatment, and emotional shocks* and possibly alcoholism are definitely precipitating. The largest incidence is in the sixth and the first half of the seventh decades.

Course. Like paresis, the clinical course of the senile psychoses, physically and mentally is inevitably downward, a twin deterioration, progressive loss of somatic strength and functions and mental capacity ending at a very low level of dilapidation.

Symptoms and Diagnosis. For several months there is apt to be a prodromal period of insomnia, malaise, muscular weakness, anorexia and seclusiveness. Then begins impairment of mental powers and wavering of recent memory excused by feeble eva-

* Events which upset the usual routine of daily activities are very disruptive for old people. As an aftermath of the civilian bombing in London an increase of senile psychoses was reported.

culosis, decompensated cardiac and aortic disease are contraindications

PROCEDURE Before treatment is instituted the patient should be put into his optimum physical condition. Quinine sensitivity is tested by injecting 0.1 cc. of a 1 per cent solution of urea quinine hydrochloride, a marked urticarial wheal being indicative of sensitivity.

Tertian malaria (*plasmodium vivax*) is preferable. Inoculation may be effected from a donor with malarial fever due to an established strain by injecting from 2 to 3 cc. of citrated whole malaria blood. Incubation varies from a few days to three weeks. Eight paroxysms and often fewer are sufficient, but there should be about 50 hours of fever above 104° F. The patient should have all the clinical care and nursing that is exercised in the treatment of malaria.

The malaria may be halted by quinine bisulphate orally (gr X tid), given until the blood has been free of plasmodia for two weeks. If an emergency indicates speedy termination use 2 cc. of a 1 per cent solution of quinine and urea hydrochloride intravenously.

The following complications bring up the serious consideration of terminating the malaria:

- 1 Continued hyperpyrexia refractory to sponging, etc.
- 2 Shock, extreme exhaustion between chills, foreshadowed as a rule by extreme restlessness and insomnia, rapidly falling blood pressure, etc.
- 3 Convulsive seizures, particularly when generalized.
- 4 Tabetic crises, lightning pains, etc.
- 5 Rising urea nitrogen in the blood.
- 6 Hemorrhage from mucous membranes or in skin (purpura).
- 7 Jaundice, not to be confused with icterus due to anemia.
- 8 Cellulitis developing about abrasions, bed sores, etc.
- 9 Bronchopneumonia.
- 10 Acute splenitis, large, firm, tender spleen.
- 11 Cardiac decompensation, characterized by thready pulse, cyanosis, edema, basal pneumonia.
- 12 Severe anemia, hemoglobin below 40, red cell count below 2 million, marked leukopenia.
- 13 Sudden overwhelming increase in parasites in blood.
- 14 Stupor between chills.

In the face of the structural brain pathology and disorganization of the cyto-architecture the results of malarial therapy are surprisingly good. In reasonably recent paretics, more than half show con-

who are their nearest friends and relations. For the same reason, they can never amuse themselves with reading, because their memory will not serve to carry them from the beginning of a sentence to the end, and by this defect they are deprived of the only entertainment whereof they might otherwise be capable.

Prognosis. Although a great deal may be done to protect the patient and make him more comfortable, yet, as is obvious, recovery, or even long lasting considerable improvement, cannot be hoped for. Terminal pneumonia frequently draws the curtains of death upon senile dementia.

Treatment. Whatever is said about treatment here applies with equal force to paresis and all the deteriorations. Treatment may be divided into Precautionary Treatment, General and Medical Care and Protective Care.

PRECAUTIONARY TREATMENT It would be too much to say that the senile psychoses can be prevented. However, as old age approaches, it is wise and feasible to follow a program of sensible precaution, putting the old person into the best possible physical condition and softening the impacts of physical and emotional blows. With such a program, at least there is a chance that the old person may attain the boon of dying "all over, all at one time."

GENERAL AND MEDICAL CARE We all know the importance of "creature comforts." They are small devices we automatically put into operation in order to be comfortable and secure as to food, heat and cold, common dangers, etc. Too, often it is forgotten that the old or deteriorated person is no longer vigilant in the functioning of his sense of self preservation and literally does not have enough mind left to know what he wants or needs. Small "creature comforts" should be provided for the patient, as well as proper, easily digestible food at frequent intervals and not in too large quantities, clothing to protect against cold and sufficient even in summer (old people chill easily), a comfortable bed, enough sunshine and fresh air, and personal cleanliness. Old people mislay all manner of things. They readily trip and fall. They choke on a bolus of food that is too large. These and numerous other needs and hazards should be anticipated.

The medical care should be one of masterly inactivity—not too much medicine, although laxatives will surely be needed, suitable sedative drugs in small doses, a little good whisky. There are a thousand and one medical chores, such as relieving skin irritations or hemorrhoids or bladder irritations, toothache, improving the general bodily strength and tone by suitable vitamin therapy, etc.

sions and crude fabrications. Patients are apt to wander away and get lost or patrol the house at night, injuring themselves by falling or setting fires because of the memory defect (dropping lighted matches, etc.) The emotions deteriorate, normal sympathy wanes. The patient becomes stubborn and selfishly self centered, he also displays violent temper tantrums and moral laxities.

Various clinical types may be recognized *simple dementia, delirious and confused, depressed and agitated, paranoid and presbyophrenic* *

These types, notably the paranoid and depressed, receive their clinical cast from the survival and the accentuation of previous personality traits. In the instance of the depressed type a gloomy, melancholy disposition is the basis, and in the paranoid, a distrustful, suspicious one.

There are various presenile deteriorations, Alzheimer's disease, Pick's disease, and others. Alzheimer's disease develops as early as the fortieth year with marked emotional instabilities and often with aphasia and apraxia. Approximately one third of the brain nerve cells are destroyed and replaced by darkly staining, fibril bundles in the form of milium plaques.

Irrespective of the clinical types of the senile psychoses, the cardinal symptom of the weakening and eventual effacing of recent memory is more diagnostic. Dean Swift, the master of satire, gave a classical description of senile dementia when, in *Gulliver's Travels*, he described the old age of a struldbrug (immortal). At birth a struldbrug had a red circular spot on the forehead directly over the left eyebrow, "which was an infallible mark that it would never die." The birth of a struldbrug was a public calamity, since even though they could not perish physically, yet, they were doomed to all the physical and mental infirmities of advanced age. Swift gives a remarkable description of senile dementia.

When they (the struldbrugs) came to four score years they were not only opinionated, peevish, covetous, morose, vain, talkative, but incapable of friendship and dead to all natural affection which never descended below their grandchildren. Envy and impotent desires are their prevailing passions. At ninety, they lose their teeth and hair, they have at that age no distinction of taste but eat and drink whatever they can get without relish or appetite. It talking they forget the common appellation of things and the names of persons, even of those

* In presbyophrenia there are marked defects of memory, retention and orientation but a surface mental alertness is preserved. The patient is suggestible and readily led into fabrications giving the impression of Korsakoff's syndrome.

About three fourths of idiopathic epilepsy begins before the age of 20. With incidence above the age of 30, the diagnosis is dubious. The pathology is scarcely specific and is likely to be beclouded by brain damage due to head injuries and brain pathology incidental to convulsive seizures.

Symptoms and Diagnosis Without a history of grand mal seizures or indubitable evidence of epileptic petit mal the authenticity of the diagnosis is in doubt. Psychiatry is interested in the personality of the epileptic, in the psychotic equivalents for the convulsion and its sequels and in the personality wreckage left by epilepsy.

While epilepsy, in itself, is not a mental disease, yet the personality of the established epileptic is far from normal. This is partly due to the impress of the "falling evil" and, in part, to the resentment and the bitterness at being more or less a social outcast. The chronic epileptic is apt to be conceited and egotistic, emotionally unstable, a hypochondriac, filled with sickly sentimentality and religious "saws," lacking adaptation to environment, impulsive, pugnacious, cruel, irascible, sadistic and irritable. The irritability may be so extreme that I have likened it to an early colonial flag showing a coiled serpent ready to strike bearing the caption, "Noli me tangerel" (touch me not!) The reaction may be severe enough to be psychotic—the so called "periodical ill humor." These severe personality distortions are no longer as common as they were, partly because of brilliant pharmacologic therapy and, in part, to the more intelligent attitude of the public toward epileptics.

The diagnosis of epilepsy has been placed on a much firmer foundation by electroencephalography. The graphs of epileptic brain waves show large, slow waves varying from 3 to 8 per second in frequency or so called "spike wave" formations which are seen especially in petit mal. Some epileptic patients have abnormally high frequencies.*

It is often necessary to differentiate between true epileptic and hysterical seizures. The characteristics of the epileptic convulsion are derived largely from the inevitable unconsciousness, falls and injuries, cyanosis, stertorous respiration, fixed pupils, eyes rolled upward, often the tongue is bitten and there is bloody frothing at the mouth, frequently there is bladder and bowel incontinence.

* Electro-encephalography from small beginnings has progressed rapidly and is now a scientific discipline in its own right. Many wave patterns have been worked out accurately, not only in epilepsy but also in many other brain abnormalities. The student is referred to the standard texts on the subject.

The doctor who considers himself superior to these considerations never should have studied medicine

PROTECTIVE CARE The ravages of brain pathology divest the personality of its ethical veneer and inhibitions against entanglements by "gold diggers," female and male, swindlers, etc. The inhibitions against impulses in the direction of indecent exposure, attempted sexual assaults on children etc., are feebly interposed or altogether wanting. The helpless deteriorated person, senile or otherwise, is entitled to the protection of his finances and his reputation

PSYCHOSES DUE TO CEREBRAL ARTERIOSCLEROSIS

These psychoses have much in common with the senile psychoses. Etiologically, there is in both the factor of cerebral arteriosclerosis. There are pathologic differences, the outstanding one perhaps being the advanced vascular sclerosis, the many foci of softening in the brain, and the absence of senile plaques. Clinically, one may be aided diagnostically by the relatively earlier age of onset. High blood pressure is not a safe criterion and, as likely as not, peripheral pressure may be low. Examination of the retinal vessels may be helpful. Perhaps there is more irritability, and the temper outbreaks are more violent with greater destructiveness. The presence of general and focal indications of arteriosclerotic brain damage is very helpful diagnostically. The prognosis is not good but partial remissions may occur. Treatment indications are the same as in the senile and other deteriorative psychoses.

EPILEPSY

The importance of epilepsy is clearly indicated by the statistical fact that there are at least 1 000 000 epileptics in the United States and probably many more victims of migraine which many authorities feel is related to epilepsy.

From the large assortment of convulsive disorders, there emerges "idiopathic" epilepsy as the clinical entity of primary interest to psychiatrists. The particular attention is focused upon the psychotic complications of epilepsy.

Etiology Promising progress is being made, but at this time one may not go beyond stating that epilepsy is a "disordered functioning of the rate regulating mechanism of the brain", "a paroxysmal cerebral dysrhythmia." While careful studies have somewhat limited the significance of inheritance, yet it is not to be ignored

portance, since the patient is amnesic for his behavior, whether it lies within normal limits or is criminal. Epileptic dementia may be profound, divesting the patient of almost every faculty that distinguishes man from animal.

Prognosis. Epilepsy is scarcely favorable in outlook. With recent pharmacologic advances, very considerable improvement may be obtained. Sometimes in children, seemingly, recovery occurs at puberty. Life is shortened by injuries sustained in convulsions, or death may occur in status epilepticus, a series of convulsions without intermission. Pneumonia is often terminal.

Treatment. Much may be done for the epileptic through diet, control of the obstinate constipation and dehydration (within reason), acidemic and oxygenation measures, an occupation selected with an eye to freedom from danger. The drug therapy of choice is diphenylhydantoin sodium ($4\frac{1}{2}$ to 9 grains daily). If the patient cannot tolerate this, phenobarbital (1 to 6 grains daily) is useful. The continuous use of bromides in large doses is deplorable. Each epileptic patient should be viewed as a problem for diagnostic study, apart from the disease itself. Wherever feasible, foci of infection should be removed and the handicap of physical disabilities lessened.

Pharmacologic research has added to the therapeutic armamentarium. Lennox thinks favorably of Tridione in the treatment of petit mal. Kozol reports impressive results with phenantoin, of 104 difficult cases, 60 per cent had their epileptic attacks reduced 90 per cent, the interval between attacks was tripled. Phenantoin can be given in larger doses than either Dilantin Sodium or phenobarbital, the amount of dosage may be somewhat determined by drowsiness. It can be used with other medication, particularly Dilantin Sodium, and since the taste is agreeable it may be given by mouth to babies. Many more drugs have been added to the list. In forming judgment as to which to use for a given patient, it is advised that the physician study the scientific and clinical reports and not rely solely on the publicity of pharmaceutical houses. It is quite important to remember, too, that these drugs should not be withdrawn abruptly and to do so may produce grave complications, like status. Experimental work is being done with electroshock therapy, so spaced as to avert anticipated seizures.

Since modern therapy definitely decreases the frequency of the attacks, physicians, particularly when dealing with children, should combat social isolation often promoted by parents, so that the child is protected from public knowledge of the attacks. While this is desirable, yet on the other hand a greater evil is the distortion

Seizures occur at any time, day or night; there is amnesia for the convulsion and for some hours or longer thereafter; there are signs of cortical irritation, hyperreflexia, positive Babinski, etc.; and there is postconvulsive sleep or deep confusion.

In the hysterical convulsion none of these phenomena are clearly present, since consciousness is not abolished. The attack is likely to occur before an audience, the patient observes her surroundings from the "tail of her eye," falls in "soft places," does not bite

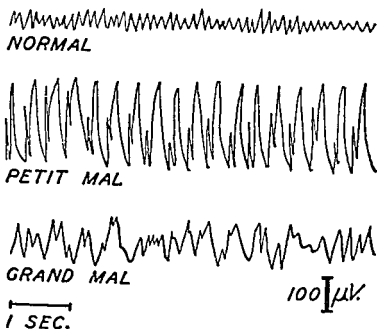


FIG. 9. Comparative encephalograms.

the tongue and is only rarely incontinent, there are no neurologic signs and no amnesia; usually after the seizure the patient is bright and alert.

The diagnosis of epilepsy is a most serious consideration and should not be made until all simulating conditions, from such simple things as severe eye strain to such grave conditions as marked endocrine disturbances, toxicities, exogenous and endogenous, and even brain tumor, have been ruled out.

EPILEPTIC PSYCHOTIC REACTIONS, EQUIVALENTS, AND POSTCONVULSIVE STATES AND DEMENTIA. There may be epileptic dream or twilight states, delirious confusion with hallucinations and ecstatic delusions or anxiety, transitory states of depression and excitement, paranoid states, epileptic furor in which the epileptic is maniacal, destructive and sometimes dangerously and horribly homicidal, and epileptic fugue states. Many of these reactions have medicolegal im-

portance, since the patient is amnesic for his behavior, whether it lies within normal limits or is criminal. Epileptic dementia may be profound, divesting the patient of almost every faculty that distinguishes man from animal.

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of the personality from the inferiority produced by isolation from the play and social life of other children

If there are definite psychotic symptoms, it is often necessary, both for the protection and the welfare of the patient and the safety of the community, to treat the patient in an epileptic or mental hospital, preferably the former

HUNTINGTON'S CHOREA

Huntington's chorea is a progressive, degenerative disease of middle life entailing severe dementia. Significant in etiology is inheritance, it is one of the few conditions strongly suggesting a Mendelian pattern. It occurs in both sexes.

Clinically, the following represents a fair cross section. At first, twitching and mild choreiform movements occur. Some years later, personality alterations—irritability and temper explosions—begin to appear. Extensive characteristic choreiform movements, involving both extremities and the face with grimacing and animal-like noises, are characteristic. Speech is slow and indistinct. There may be depression, vague suspicions and paranoid trends. Often there are periods of temporal and spatial disorientation and incipient recent and remote memory and, in general, a picture of mental deterioration.

Prognosis. The prognosis is unfavorable, and treatment can hope only to meet conditions as they arise in the course of the disease. Often institutional care is needed.

BRAIN TUMORS

Brain tumors are of neurologic rather than psychiatric interest, but there are many points of psychiatric contact. Naturally, the dislocation and the pressure upon the brain produced by the intrusion of new growths into the strictly limited skull space is expressed not only in terms of *general* and *local* symptoms but also mentally, often as disturbances of consciousness.

Brain tumor diagnosis is scarcely to be made on the basis of mental symptoms. Rather, it is a matter of careful physical and neurologic examinations, evaluation of general brain pressure and of localizing symptoms, as for instance jacksonian epilepsy in motor cortical lesions, eye ground studies, roentgen ray studies, including the highly specialized techniques of encephalography and the ventriculogram.

The treatment of brain tumor, whenever feasible, is surgical, but

behavior disorders and mental deterioration may indicate the need for a mental hospital. Within the past few years surgery and psychiatry have become allies in a combined surgical and re-educational attack upon certain psychoses. It is possible that our application of the operation of prefrontal leukotomy to certain schizophrenic situations* has revealed interesting information concerning frontal lobe function, personality and behavior. It will be discussed further under Involutional Melancholia and in Chapter 11.

BEHAVIOR DISORDERS IN ADULTS AND CHILDREN ASSOCIATED WITH AND SEQUEL TO ENCEPHALITIS AND HEAD TRAUMA

These disorders may be discussed together. The encephalitic behavior disorders are more common and significant. The primary causes of these behavior deviations are head trauma and encephalitis epidemica. It is obvious that destructive brain injury, severe concussion, impacts and wide spread inflammation would have marked repercussions, particularly in the growing brain and in the developing personality and its behavior expressions. There may be deterioration, marked by a decline in mental capacity and ability, in memory and in judgment. When the outcome is not deteriorative, then the behavior markings seem to be largely determined by the previous personality. There may be typical manic reactions, depressive trends with suicidal attempts, and psychoneurotic syndromes.

Behavior disorders in children involve a considerable social and economic problem of serious delinquencies. Often there is complete reversal of the previous character and dispositional pattern. The fundamental symptomatic design is seemingly one of marked emotional lability and hyperkinesis. The details of the numerous behavior difficulties fit into this design, making a fairly constant clinical mosaic.

The physician should be on the alert for the behavior disorders secondary to epidemic encephalitis and severe head injury, which may result in a traumatic encephalitis. In children both of these conditions and particularly the former, may produce a definite change in behavior, extreme disobedience, open defiance of all authority, running away from home, lying, stealing, teasing and cruelty, sexual delinquencies, violence and criminality. In the majority of instances the intellect per se, is intact though there is easy fatigue of attention and motor restlessness. A long

* Strecker, Edward A., Palmer, Harold D., and Crant, Francis C.: A Study of Frontal Lobotomy, *Am J Psychiat*, 69:4, 1942.

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Included there would be cerebral lues, brain abscess, cerebral hemorrhage, thrombosis and embolism, paralysis agitans, disseminated sclerosis, tabes dorsalis, Sydenham's chorea, etc. The diagnostic problem is chiefly neurologic and the mental symptoms are not specific. They are determined in part by the actual structural damage, and in part by the intrusion and distortion of previous personality traits.

period of re training and re education under standardized conditions is the chief therapeutic hope

The treatment of behavior disorders after encephalitis is of importance in itself and also offers hints in the management of a considerable amount of bad behavior in children which is associated with other physical diseases

The aim of treatment must be to prevent the bad results which unfortunately have been shown in thousands of cases. These results have a curious similarity, a common stamp, even though the children have been brought up in countries far removed from each other in customs. Boys stay up all night, play truant, fight, get into dangerous mischief, steal, and are headed straight for prison. Girls run away for excitement, are fearless in defying all authority, and become sexual misdemeanants. Both show a demoniacal ability to disorganize schools, families and neighborhoods and fail to respond to appeals or punishment. Nevertheless the children may remain intelligent, affectionate, and often very likeable.

The time for a physician to start treatment is in earliest convalescence. As the child improves from the physical illness the doctor should say to the parents, 'You must make up your minds to train this child over again. The child will be irritable, restless and will seem willfully to have forgotten his good habits. You, yourself, will be tired and busy, but you must keep yourself from getting angry and stick to a long and well thought out policy of re education. You must not let your sympathy lead you to spoiling the child, but, on the other hand, you must realize that punishment makes things worse. Try to keep the child well rested, well nourished and well occupied, keep other children away. As the child gets stronger fill every minute of the day with interesting things—lessons, gymnasium work, games, manual training.' This is asking a lot of the parents, but it is saving them trouble in the long run. The family is really fighting for its own happiness as well as the welfare of the child.

Better than home endeavors, which are extremely hard on the other children of the family, is a small class of children of the same age under psychiatric supervision. Such a class is described in the *Atlantic Medical Journal* of March, 1927. It would be well for physicians to support any project to establish such classes in nearby mental hospitals.

In case the child is left feeble-minded by encephalitis, which is not a common occurrence, commitment to a suitable institution should be advised, as no home treatment is of any use.*

OTHER POSSIBLE TYPES

There are many more organic reaction types and, in fact, mental symptoms may be a part of any organic central nervous disease.

* Personal communication to the author from Dr. E. D. Bond. From Strecker and Ebaugh. *Clinical Psychiatry*, Philadelphia, Blakiston.

stance, in certain virus infections the polynuclear white blood cells are decreased and the lymphocytes are increased. Particular symptoms identify the nature of the toxicity, for instance, the dullness of a consolidated lung and the demonstration of the infecting bacillus from the sputum, the symmetrical bilateral dermatitis of pellagra, Kernig's sign and the identification of the meningococcus from the spinal fluid in meningitis, the positive Wassermann in lues, the alcohol blood content in alcoholism, the blood bromide content in bromide poisoning, etc.

Prognosis. In the toxic psychoses, there is a low inheritance constitutional factor and a high acquired intoxication and infection factor. Therefore, the outlook is quite good unless the source of the illness, in itself, is of ominous significance, as for example, pernicious anemia or malignancy.

Treatment. No doubt as more research data is made available, many toxic mental reactions will be prevented by dealing at the beginning in forthright fashion with the infection by means of such drugs as penicillin, aureomycin, streptomycin, etc. Sometimes, these drugs of themselves may produce psychotic reactions.

In the face of an actual toxic psychotic reaction, the intelligent physician does not attempt to treat separately the physical and the mental symptoms. He treats the patient. Well planned "physical" therapy diminishes the harmful effect of mental symptoms and vice versa. In the course of the illness it may be necessary, for the time, to focus attention intensively upon a somatic crisis, for instance, failing action of the heart. So too, may it become imperative to control "mental" symptoms, perhaps extreme motor activity, since it may imperil the life of the patient.

The keynote of sound therapy is the control of the basic pathology, if possible, its removal and the lessening of its damaging aftermaths. This is a therapeutic principle, whether the pathology be infected teeth, carbon monoxide poisoning or lobar pneumonia. In addition to the general therapy, specific treatment should be used whenever possible.

There are general treatment measures, some of which are applicable in every case.

- 1 Control of dehydration, acidosis, and infection by increasing the fluid intake (unless contraindicated by such conditions as cerebral edema), promotion of elimination by catharsis, colonic irrigation, gastric lavage and through the stimulation of kidney and skin functions.

- 2 Removal of foci of infection whenever practicable.

- 3 Support of the bodily systems, particularly the cardiovascular

Toxic Psychoses

GENERAL CONSIDERATIONS

The human brain far surpasses any man made machinery—in complexity, co ordination, precision and endurance. Often, even with indifferent care, it stores, sorts, files and makes available for use an enormous amount of material for upward of 70 years. The satisfactory functioning depends on the maintenance of the brain metabolism, and this in turn depends on the metabolic support received from the organs and parts of the body. Such support is decreased notably in bodily toxicity.

The toxic psychoses make up a large segment of the practice of medicine and psychiatry, constituting not less than a tenth of the psychoses. There are certain significant and common factors.

Etiology is direct and usually ascertainable as (1) an exogenous poison, like alcohol, morphine or one of the industrial poisons, (2) endogenous, as in the course of acute infections and in somatic disease in general, acute and chronic, involving fever, toxicities and depletions, (3) loss of metabolic support of the brain, as in endocrine disorders, such as hyperthyroidism and decompensatory situations, notably cardiovascular.

Symptomatic Pattern Prominent disturbances of sensorium and consciousness, varying in degree from mere clouding to a full fledged delirium with marked motor activity, complete disorientation and a vivid illusory and hallucinatory content.

Physical Findings There is a profuse array of physical findings which may be *general*, that is, more or less usual in the majority of these reactions, and *particular*, that is, dependent on the nature of the underlying pathology and toxicity.

General symptoms indicating the reaction of the organism to toxicity include fever, constipation, perhaps leukocytosis and loss of weight, neurologic signs such as tremor and in co ordination, skin and gastro intestinal disturbances such as nausea and vomiting, sympathetic manifestations, blood pressure alterations, pallor, flushing and trophic changes. These general signs are common in toxic reactions of certain types. They vary in other conditions, for in-

terror, then anger, defiance and rage. There are delusions but they are transitory and apparently refer to persecution of being "hounded."

ALCOHOLIC PSYCHOSES

Among the psychiatric disabilities due to exogenous poisons, those conditioned by alcohol are by far the most common. Alcohol is quickly effective in screening unpleasant reality, it is readily obtainable, and the pathologic drinker is tolerated socially until he has fallen to a very low level. In spite of its reputation among the laity as a stimulant, alcohol is always a narcotic.

A number of psychotic alcoholic reactions have been classified: *pathologic intoxication*, *delirium tremens*, *Korsakoff's psychosis*, *acute and chronic hallucinosis*, *acute and chronic paranoid types*, and *deterioration*. These conditions need not be extensively described.

Delirium tremens is the most active and serious delirium encountered. The tremor is marked and generalized but most notable in the tongue and the fingers. The illusions and hallucinations are visual and extremely vivid, the patient shrinking in terror from the traditional "pink elephants" and fierce and decidedly pathologic animals, snakes and insects. In researches with my associate, Thurston Rivers, we have evolved a pharmacologic plan of treatment which stops delirium tremens or aborts it when it is threatened. It consists of the intravenous administration of 100 cc. of 50 per cent glucose, 100 mg. of thiamin chloride and 30 units of insulin. If necessary, it may be repeated in three hours. Large quantities of orange juice should be given. There have been good reports as to the use of oxygen inhalations in the treatment of delirium tremens.

Acute hallucinosis is a less active delirium in which the hallucinosis is largely auditory.

Korsakoff's psychosis is not restrictedly conditioned by alcohol, occurring also in senile psychoses and other states. It may occur with or without polyneuritis. Particularly in the polyneuritic type, there is a vitamin B deficiency, and excellent results are obtained from large daily doses (30 to 50 mg.) of thiamin chloride. There is memory loss but fairly good appreciation of immediate impressions and confabulation with falsification of memory.

Chronic Alcoholic Hallucinosis. In some reactions of chronic alcoholic hallucinosis the persistent projection with a sexual content, in which the "voices" twist and deride the patient because of lack of sexual capacity and accuse him of perverted sexual prac-

4 Dietetic and tonic treatment, including an adequate vitamin supply

5 Blood transfusions, if the hemoglobin drops to dangerously low levels

6 Spinal drainage, intravenous hypertonic saline and glucose solutions for brain edema More efficient, since the reduction of brain volume is maintained for a much longer period of time, is the use of prepared human blood serum (lyophilized plasma) according to the method of my associate, Joseph Hughes It may be that from the work initiated by Cohn, there will be derived a bovine plasma, which will not antagonize human blood types and will be of great service in dealing with brain edema

7 Usually insomnia is a serious problem Often hypnotic medication must be given but it should be used sparingly, chiefly at night, and the dosage should be minimized by the liberal use of hydrotherapeutic measures, wet packs, cold and warm, and particularly the neutral continuous bath Hypnotic drugs should be selected with reference to the rapidity of their elimination Often some of the barbiturates are satisfactory Paraldehyde is a safe and too often neglected hypnotic

8 Skillful nursing is necessary, not only for the management of the physical symptoms but also for its psychiatric significance in frequently calming and reassuring the frightened patient This is not only helpful mentally but also saves somatic wear and tear

9 A sufficiently long and wisely safeguarded convalescence

10 Careful follow up care

Mental Symptoms The variation in the mental symptoms of the toxic reactions is not sufficiently large to justify separate descriptions An average clinical cross section will be given In practice, many differences in degree will be noted, usually less severe but occasionally more marked

The patient obviously is confused and disoriented, although fleetingly he correctly identifies someone in the sick room There is restlessness, which from time to time mounts to frenzied motor agitation Sometimes his motor movements are occupational, as in the case of a patient, a tailor, who went through the motions of threading a needle and sewing There is considerable apprehension, associated with illusions and hallucinations These are terrifying, since often the patient cowers in the bed clothes as if trying to hide or brushes "imaginary insects" from the coverings Now and then he listens attentively and shouts back a reply to "voices" Usually his speech is muttering, irrelevant and often incoherent The most constant mood display is fear but it is labile shading easily into abject

beginning to suspect certain truths. In this brief presentation the author wishes merely to put forward, more or less arbitrarily, certain principles of the psychopathology of alcoholism which in the light of experience have been found to possess therapeutic value.

Contrary to general and public lay opinion, the alcoholic is not very likely to be the "hail fellow well met" type. In his personality traits he is more apt to be preponderantly an introvert than an extrovert. Of course, there is much drinking among those whose dominant traits are out-going and social, but the real, purposeful consumption of alcohol is more common among those who tend to look inward and are not socially facile. They have a logical surface reason for their drinking. For them, it lessens the usual friction of the social wheels and makes contact with their fellow men bearable and even pleasant. As for the extrovert, his personality endowments have already granted him the grace of being "easy" with the herd. He does not really need alcohol, though he does use it to heighten the pleasures of reality. In those introverts who are addicted to alcohol, one may expect to find the purest expression of uncomplicated clinical alcoholism.

Likewise does it seem true that alcoholism is one of the psychoneuroses of introversion. Careful clinical study of alcoholic patients leaves one with the conviction that alcohol is utilized as psychoneurotic symptoms are utilized—in order to screen effectively unsatisfactory external and inner realities. Painstaking analyses of the clinical life histories of alcoholics and psychoneurotics will reveal, and not infrequently, substitution phases during which, in the same patients, when the intake of alcohol ceased, then psychoneurotic phenomena were in the clinical foreground, when the psychoneurotic picture faded, there was again alcoholic overindulgence.

Both in one of its chief psychopathologic motifs and in its deeper motivation, the psychoneurotic pathologic drinking of the introvert asserts itself as a neurosis of emotional immaturity.

Once the potential alcoholic has satisfied the surface reasons for his drinking, that is, the attainment of greater social ease and satisfaction, he soon begins to drink pathologically.* A much deeper

* Pathologic drinkers are recruited from the ranks of social drinkers. Usually, because of the insult to his ego, the patient does not recognize that he is in dangerous territory, even though it is apparent to everyone else. Therefore, the signs of beginning addiction are important. I quote a few pertinent paragraphs from a pamphlet, "Are You a Social Drinker?" which I wrote a few years ago for the Pennsylvania State Board of Liquor Control.

"When you feel you must habitually drink in the morning to recruit enough courage to get through the day, then you are in danger. Another time to take stock of yourself is when you find yourself taking drinks with regularity

tices, strongly suggests the presence of considerable latent homo sexuality in the personality. Many of these reactions show relatively little disturbance of consciousness and may be schizophrenic.

Paranoid Types Some of the paranoid types show considerable well developed delusional formation, sometimes dealing with marital infidelity, determining dangerous and even homicidal behavior.

Alcoholic deterioration, as the name implies, is a dementia resulting from brain damage. Sometimes it is erroneously called "alcoholic pseudoparesis."

Pathologic Drinking Of very great importance is a fundamental understanding of the psychopathology and the psychotherapy of pathologic drinking. It always has been an enormous economic, social and medical problem and, now in the confused postwar era, it is a greater problem than ever. The stress and strain of war, particularly in industrial production, greatly increased addiction to alcohol. The wastage of much needed brain energy and capacity is extremely serious.

It is only within recent years that the light of modern science has been focused upon alcohol and alcoholism with sufficient intensity to penetrate the enveloping fog of traditional error. No where in medicine is the survival of archaic *post hoc ergo propter hoc* thinking more apparent than in theories concerning alcoholism and its treatment. Loose concepts concerning organic pathology, often based on nothing more than a sequence of events, were freely accepted. Now, as is well known, even such pathologic "verities" as cirrhosis of the liver or neuritis can no longer be attributed solely to alcohol.

Concepts concerning the psychopathology of the alcoholic were influenced by even more ancient and more erroneous fallacies. Consequently, until quite recently, therapy, as might be expected, considering its derivation from such concepts, has consisted of a queer hodgepodge of so called psychotherapy. Practitioners of medicine participated with families of alcoholic patients in various plans which depended for their hoped for effect upon persuasion and threat, reward and punishment, usually ending in eventual incarceration. All in all, these plans and methods conspired to wrap the alcoholic even more tightly in the swaddling clothes of emotional immaturity. This was doubly unfortunate in thought and in practice, since the only hope for the alcoholic, psychologically speaking, is to be stripped of the garments of his immaturity so that he may learn to face himself in the nakedness of truth.

As in the physical segment of alcoholism certain principles are beginning to emerge, so, too, on the psychological side are we

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rental loving-dominance was perpetrated against the child. The aftermath is obvious. The time comes all too quickly when the child arrives at the chronologic age at which society expects and demands emotional maturity accompanied by adult behavior. The emotionally immature individual makes a sorry attempt to satisfy these demands by a few futile and inadequate gestures. He fails. Society begins to exact the penalty for such failure. Perhaps the remainder of the picture, its alcoholic component, is a matter of chance. But it is a chance in which the dice are loaded, since alcohol is not only the most rapidly acting solvent of unpleasant reality but is also the most available and least socially reprehensible of the techniques for evading reality. It is fantasy in a bottle.

Perhaps the theme has been advanced to the point at which the definition the author has proposed for the chronic alcoholic should be repeated. *The chronic alcoholic is the person who cannot face reality without alcohol, and yet whose adequate adjustment to reality is impossible so long as he uses alcohol.*

The therapy of chronic alcoholism certainly has not arrived at a specific stage. For the present time, at least, it must continue to be a many-faceted plan of treatment. This presentation does not reach the dimensions of any discussion of the physical and pharmacologic aspects of therapy which embody some degree of usefulness for almost every patient and in given instances, particularly in the presence of certain complications, may be therapeutically decisive.

Only those treatment leads which may be properly called psychological will be considered. These are largely derived from the hypothesis that true chronic alcoholism is a psychoneurosis, defensive in character, with the object of shutting out reality inimical to emotional immaturity—a mechanism which appears to be a logical aftermath of the stunting in childhood of the emotional growth. The therapy is designed to act as the corrective antidote to the usual type of "treatment" which the patient has been accorded—an illogical system of reward and punishment administered on a childhood level.

A valid psychological method of treatment substitutes a skilled therapist for the wife, or husband, or the family and sometimes, too, for the physician, who has been induced to play at the game of pseudo treatment. The attitude of the skilled therapist is strictly impersonal, objective and unemotional, from the very beginning he declines to deal with anything but the mature segment in the personality of the patient, no matter how minute that segment happens to be. The therapist is the clinical clerk noting the history as it is unfolded, interpreting its significance, guiding but never dictating.

need demands satisfaction, and this need is of great significance in the psychopathology of alcoholism. This urge is a demand for regression to lower levels—levels of lessened responsibility, immaturity and, finally, fantasy. Here we are dealing with something very ancient, as old as alcohol itself, the ever-present necessity for a technic which may be relied upon to blur the sharp outlines of reality and to soften its hardest blows. That the journey to regressive levels is the *raison d'être* for pathologic drinking is obvious. Even in more or less normal social drinking, alcohol quickly dissolves, for the drinker, the garments of sober responsibility and years and temporarily reclothes him with the vestments of carefree youth. In pathologic drinking very deep levels of regression are commonly observed, even descent to the level of infantile helplessness with abandonment of control of the ordinary bodily functions.

A careful study of the life histories of many alcoholic patients would seem to indicate that one is fairly close to the fundamental causation in the discovery of the very frequent recurrence of a childhood environment which thwarted and even completely blocked the attainment of an adult emotional stature. The common pattern in these histories is one in which the psychological crime of pa-

throughout the day. This is not so much a question of amount of alcohol consumed but rather that the drinking seems to spring from an imperative demand arising from within the drinker.

"Any decided departure from the pleasant ritual of social drinking is to be viewed with suspicion. For instance, almost every man who drinks at all, occasionally takes a drink before lunching. However, if you find yourself having a drink before luncheon and then, perhaps two or three drinks every single day and begin to feel that without them something very necessary is lacking, then, properly, you should be concerned. Again, if when you are having a few drinks with friends and as the party is about to break up, you find yourself hastily gulping down 'a couple of quick ones,' then you had better be concerned. Finally, if you find your social drinking becoming less important and your solitary drinking much more prized, then you are in grave danger of becoming an abnormal drinker.

"There is no absolute rule for the safest use of alcohol for each person, but, if you want to safeguard yourself, review the history of your drinking from these four points:

"1 In your frank judgment and in the honest opinion of your friends, is your behavior under the influence of alcohol such that it would make you think that you are one of those who should not use alcohol?

"2 Consider the history of your drinking. Is it at about the same level of moderate controlled drinking as it was at first, or has it increased to dangerous proportions?

"3 What do you gain by drinking? Is that 'gain' something upon which you are dependent, or could you manage your life satisfactorily without it?

"4 Are you sure you could stop drinking?"

sobriety, yet he never will attain complete recovery. It has been said, as illustrative of the firmness of the nonalcoholic decision, that should the individual pass beyond this vale of tears and be welcomed by the Guardian of the Heavenly Gates proffering a cup of heavenly ambrosia, it would be automatically declined upon the suspicion that it might contain alcohol.

It is not necessary to reiterate the details of this treatment plan since everything that is done is subjected to the criterion of a mature intelligence. Of necessity, there are many treatment steps which tend to decrease the time required to reach the recovery level. For instance, it often seems wise to open the pathways for a change in the occupation of the patient. Such change is practically never motivated by the amount of alcoholic temptation inherent in the occupation itself, but because it may become an obvious inference from the history that the patient is unsuited for the work that he is trying to do, and that promising vocational potentials either have not been recognized or have been thwarted. Even when a change of occupation seems to be highly desirable, nevertheless it would be unwise and contrary to the spirit of the treatment for the patient simply to take the therapist's word for the change. In other words, in this, as in all other things, the patient from the vantage point of his increasing maturity, must make his own decision.

It may be recognized that too many rules would negate the value of such a plan of re-educational therapy. There are, however, two considerations to which the prospective patient must subscribe before the therapist is willing to accept him for treatment. For one thing, the patient must convince the therapist, at least in some degree, that he is undertaking treatment because he himself has recognized the necessity of attempting to emerge from the depths of his alcoholism and because, too, he feels that this plan of treatment promises a likelihood of accomplishing this purpose. Patients who present themselves for treatment under promise, overpersuasion, threats or duress from the family will not often succeed in getting well.

For the second thing, while agreements not to drink are quite alien to this form of treatment, and no nondrinking pacts in any form are extracted from the patient, yet he must be willing to agree to notify the therapist as soon as possible in the event of a relapse.

The author is quite aware of the fact that he may be accused of psychologic myopia in not stressing the significance of latent homosexuality as a factor in the shaping of pathologic drinking. On the

He does not even give directions as to the details of living surrounding the moot question of alcohol. "Shall I have alcohol in the house?" "Shall I serve it to my friends?" "May I go to the bar of my Club?" "Can I go to the neighborhood taproom to play darts?" The only mature, logical answer to such questions is this: "You shall, may, or can, or you shall not, may not, or cannot, just as you yourself decide."

While it is true that in the careful elicitation, elaboration and interpretation of the history, the bull's-eye of the target of the therapist is the alcoholism, yet it is even more true that the concentric rings surrounding that bull's-eye, which are rich sources of understanding and therapy, are often hit. It is amazing how often, with a thoroughly objective approach, such sources trace a pattern of emotional immaturity directly attributable to deficits in parent-child relationships.

The therapist acts as an inhibitor of the marked tendency of the patient to travel into the erroneous paths and by-ways of self-deception or rationalization. He cannot tolerate naïve beliefs on the part of patients that they drink to excess because they are in poor physical health, have disagreeable wives, have rigid employers, have made bad investments, or that the weather is stormy, finally descending to the very nadir of gross and obvious rationalizations. Nor can the therapist tolerate heroic gestures on the part of patients as to their reasons for desiring recovery. The therapist knows full well that while an alcoholic person may be genuinely and miserably remorseful at the contemplation of the unhappiness of his wife, the degradation of his children, or the sadness of his old mother, yet the inevitable result of such pathos will be to drown it in the bathos of a tidal wave of alcohol.

The highest hurdle that the alcoholic patient must finally succeed in clearing is that of the acceptance of a completely nonalcoholic future. The difficulty of taking this hurdle is not entirely due to the renunciation of the pleasures of alcohol but, in considerable degree, to the emotional immaturity of the patient. His ego has been somewhat pitifully shamed by the view he has had of his childish behavior. He wants to be a "man" and, somewhat paradoxically, he dallies overlong with the thought that a "man" can "take it or leave it." When he finally does attain the emotional stature of adulthood, he understands all too well that no ego belittlement is involved in the self-made decision that the only possible choice is never to take alcohol again. In any event, unless such a conviction is formed within the patient and is formed so definitely that it is inculcated into his personality, then, although he may have long periods of

immature, and the treatment fails. Frequently, alcohol is an exception.

Almost always, alcohol can be withdrawn abruptly. Morphine and the opium derivatives cannot be withdrawn at once, but usually rapid withdrawal (from 7 to 14 days) can be practiced. Withdrawal symptoms (which may be simulated) usually start within 48 hours of the cessation of the drug and usually subside in from 5 to 14 days. Yawning and lacrimation are common, as is sneezing, motor restlessness, sweating and chills, vomiting, diarrhea, abdominal cramps and speech disturbance. Isbell, from the U. S. Public Health Hospital, Lexington, Ky., presents convincing evidence that the withdrawal of the drugs in barbiturate addiction is far from being a simple matter. Weeks or even months may be required, and there is danger of convulsions, psychotic symptoms and sometimes death.

OTHER TOXIC REACTIONS

The discussion of the toxic psychoses may be closed by mentioning a few pertinent facts, diagnostically identifying or therapeutically helpful. First, it may be repeated that there are many exogenous poisons, including so called "harmless" substances and drugs which may elicit mental symptoms. Likewise, any somatic illness may upset the mental stability.

There are probably a million drug addicts in the United States. Cocaine is the drug of the underworld used by criminals to "nerve" themselves for desperate acts. Due to the splendid efforts of the Federal Narcotic Bureau, the availability of cocaine has been greatly decreased. Habitues sometimes suffer from the delusional idea of worms and bugs crawling under the skin. The central nervous system is vulnerable to lead, but here again, as in many exogenous and endogenous poisons, the amount of psychotic reaction is influenced by the personality of the patient. There may be headache, restlessness, delirium, visual hallucinosis, facial twitching, inarticulate speech, insomnia, wrist drop and sometimes ankle drop, steppage gait and weakness or paralysis of the legs, muscle atrophy, usually of the hand muscles, delusions of persecution. Treatment by the intravenous injection of sodium thiosulphate is important. Arsenic poisoning tends to involve the lower extremities. Although the *veronal* groups of drugs are now rarely used, it should be remembered that intoxication by these drugs presents a striking resemblance to paresis with facial tremors, speech defect and a hazy sensorium. There is still a tendency to prescribe *bromides ad lib*, regardless of the fact that bromide intoxication with psychotic re-

other hand, he is convinced that this factor is significant in only a relatively small segment of chronic alcoholism, and a fraction of this segment is more satisfactorily dealt with by the psychoanalyst. A review of the long section of life histories of many patients would seem to emphasize the importance of what might be properly called 'latent heterosexuality,' rather than latent homosexuality. Latent heterosexuality is part and parcel of the emotional immaturity and reveals itself as a kind of trifling with sex—an incomplete sex life and, in general, an unwillingness or an inability to put down the foundations which are needed in order to support a completed and mature structure of sex and its implications.

From several points of view the re educational plan of treatment, the outlines of which have been suggested, is psychobiologic in its perspective. In both the study of life material and in the derived therapy, it is truly eclectic, since it utilizes in its plan every important experience and reaction of the personality in the life history of the patient.

Even though it is unlikely that pathologic drinking is based on somatic pathology, yet it goes without saying that the physical condition of the patient should not be neglected—all bodily morbidities should be treated carefully, and the patient should be brought to his physical optimum by food, increasing the vitamin intake, etc. In a few patients there are high blood sugar levels at certain times of the day, and it is helpful to suggest that a few pieces of candy be taken at these times.

Personally, I am doubtful that any drug in itself can cure pathologic drinking. The drugs suggested depend for their effect on the unpleasant or even painful conditioning of the reflex of drinking. Often patients decline to take the medicine. The most recent drug is tetraethylthiuramdisulphid (Antabuse). It sensitizes to alcohol by producing acetaldehyde in the body, so that when patients take even a small amount of alcohol, there is flushing of the face, palpitation, rapid breathing and general uneasiness. It is not without cardiovascular and liver danger. I have seen it followed by a psychotic reaction.

Alcoholics Anonymous, an association of ex-alcoholics with chapters all over the country and a membership of 100,000, deserves much praise and credit. Its members are sincere, unselfish and unsparing in their efforts to reclaim pathologic drinkers.

Withdrawal and General Treatment Considerations Too often it is forgotten that treatment depends less on the particular drug that is taken and more on the personality of the addict. Often, too, the personality of the individual taking the drug is weak and

Functional Psychoses and Psychoneuroses

GENERAL CONSIDERATIONS

It is to be repeated and emphasized that the designation "functional" is by no means to be regarded as final. Some of the conditions which will be described as "functional," notably manic depressive and schizophrenia, present well defined organic and toxic components and it may well be that eventually they will be aligned with the organic and toxic psychoses. Nevertheless, at this cross-section, many of the mechanisms at work in these psychoses are clearly on a nonstructural basis. This does not mean the body does not participate. It always does. It does mean that determining organic pathology is not demonstrable. Probably the first lesson to be learned is that, in addition to a somatic pathology determining human disease, there is also, and quite as important, a motivating pathology that is nonstructural—a psychopathology.

It is to be reiterated here that he who pins his diagnostic faith upon discrimination between "organic" and "functional" symptoms solely by their nature has misplaced his faith. The symptoms such as headache, backache, nausea, vomiting, tachycardia, visual disturbances, convulsions, are in any case real symptoms representing, in one instance, inflammation and destruction of tissues, in the other, a marked disorder of function. In both situations the organs are not working as they should.

A fair question is this: If the dynamic pathology is not located in structure, where is it? The answer: *It is in the "not-conscious" mind.* What is the not-conscious mind and what does it contain? It may be thought of, at a minimum evaluation, as a great psychic reservoir containing, in some fashion, records of all the experiences that the individual has had during his life span and his reactions to his life experiences. It contains at least traces of all thought, emotion and behavior. The authenticity of a not-conscious mind is scarcely any longer a moot question. The study of mental material released

action is not at all uncommon. A blood bromide concentration above 150 mg is dangerously high. The important aspect of therapy is the administration of sodium chloride (gr XV t i d). The bromide ion is replaced by the chloride ion, establishing a chloride-bromide balance. *Marihuana* cigarettes may produce mental disturbances, a maniclike delirium. *Carbon monoxide* poisoning has distinctive physical markings, including cherry-red lips, muscular rigidities and hypertonicities, ataxia, tremors, retropulsion, etc., and toxic delirium with, perhaps, positive spectrum analysis for CO. The condition is often fatal, developing into a paralysis agitans syndrome, with acute lenticular degeneration.

The endogenous toxicities and metabolic imbalances which may be at the roots of psychotic symptoms are legion. The mental picture has been sketched. A few distinguishing characteristics are noted. In *uremia*, convulsions are prominent, and the laboratory findings are distinctive. *Hyperthyroidism* in itself may condition a toxic psychosis, it may tincture the symptoms of an existing psychosis, it may excite a psychotic latency into activity, or a psychosis may activate hyperthyroid tendencies. In hyperthyroidism, I have seen excellent results from a single dose of radio active iodine. The clinical blood urine chemical findings are typical in *diabetes*. In *pernicious anemia*, the blood picture is diagnostic. *Pellagra* is marked somatically by symmetric, bilateral dermatitis and stomatitis, and there may be a Korsakoff's syndrome. In *rheumatic fever* and *osteomyelitis*, there may be stuporous states, preceded by ideas of death. *Influenza* often has depressive reactions as an aftermath, and in the recent *virus* epidemics, I have often observed the sequel of marked loss of energy and considerable depression.

As has been mentioned, such terms as "influenzal psychosis," "cardiac psychosis," "puerperal psychosis," etc., are not acceptable. They convey an impression of psychotic clinical entities, not justified by the clinical findings. For instance, in an analysis of mental reactions in the puerperal and postpuerperal periods, less than one-third of the patients had true toxic exhaustive psychoses with pelvic or generalized infections. The remainder were about evenly divided between manic depressive and schizophrenia, with a scattering of paresis, psychoneurosis and other conditions.

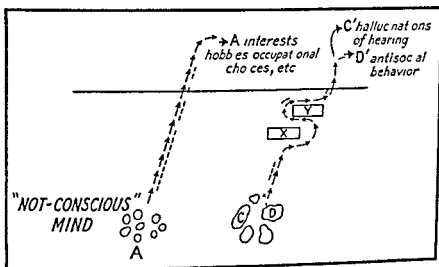


FIG 10 Direct expression of complexes in everyday behavior (A to A') and their camouflaged, devious expression due to the interposition of failure to measure up to the self ideal (X) and to public opinion (Y). Thus a complex determined by latent homosexuality (C) may be expressed in a psychosis by "voices" which accuse the patient of homosexual practices (C'), a complex determined by brutal treatment during childhood, which has been repressed (D), may appear in conscious behavior in adult life as hatred of organized society and the authority it exercises (D').

and as he presents himself to his fellow men, and the super-ego, our most recent psychological acquisition, embracing intelligence, enabling us to stand off and survey ourselves, often to condemn our own behavior and feel remorse and embracing, too, drives of compassion and self sacrifice for others. But these considerations, again, must go beyond mere interesting speculation. If they are to have clinical and therapeutic application, they must be comprehended clearly and put into practice.

It is in the "not conscious" mind that the emotional conflict is fought out. A compromise must be effected. If the compromise is pathologic, unconscious mechanisms, determined largely by the individual personality, are set into motion and shape the psychoneurotic symptoms which appear on the surface as hysteria, neurasthenia and anxiety states and as a host of functional symptoms, often superimposed upon underlying organic pathology.

during anesthesia, in hypnosis, during dream life, in delirium, in association tests, etc., is conclusive. Furthermore, the contributions of psychosomatic medicine have been very clarifying. For instance, it is accepted that the determining factor in peptic ulcer may be a long existing anxiety, the patient not being aware of the nature of the underlying emotional conflict. Finally, while physical matter may be changed so that its original form can no longer be recognized, yet it never can be totally destroyed, i.e., effaced, as though it never had been. So, too, a thought, an emotion, an experience, once it has occurred, although it may be buried (forgotten), modified, changed and, as it were, camouflaged so that it no longer can be identified, yet it cannot be wiped out as though it never had been.

The not conscious mind contains a vast amount of material. Among other things there are many trends or drives in the direction of various kinds of behavior. For want of a better name, these trends or drives are called 'complexes'. Figuratively, complexes may be compared with the functions of cells of organs. A complex, traditionally defined as a group of ideas held together by a strong emotional bond demanding expression in consciousness, is the most common and harmless thing in the world, unless it meets one or the other or both of two conditions. The first of these conditions is that the complex falls too far short of the ego of the patient, which, in a few words, is his measuring rod, a kind of self criterion of what he feels he should be, the self-ideal. The second condition is that the complex is of such a nature that if it should attempt to express itself directly in action, it would at once encounter the censure of society, the adverse judgment of the herd. The complex being denied usual and legitimate expression in everyday conscious life, the way is paved for the conflict (Fig. 10).

The conflict is probably the most vital and dynamic conception, and unless the clinician is able to visualize it as a very real and actual happening, he can scarcely have any telling faith in the validity of psychopathologic mechanisms. Conflict, of course, means struggle. Mental conflict, therefore, refers to the clash or struggle between the various and often sharply divergent tendencies of the mind. Such desires and tendencies are almost without number, but they fall into three great categories—ego, sex and herd—and it does not seem too much to say that, at the roots of every neurosis, there is the warring between the often irreconcilable demands of self, of sex and of society. Furthermore, in the human personality there is the ancient biologic endowment, the id, the great source of energy and of strong drives, often primitive and nonsocial, demanding immediate gratification, the ego, which in effect is the man as he is

Naturally, the psychoneurosis did not begin suddenly and dramatically, as has been described. There had been many antecedent years of strain, worry and anxiety. For a long time the mind has been a battleground of conflicting emotions with fear and repugnance at the very thought of the sex act contending against the strong desire to please her husband and retain his love. Inexpressibly wearied by endless emotional stress, she began to suffer from various bodily sensations. At first, they were intermittent and trivial, at last, they became fixed and serious.

These considerations have practical application in everyday practice. Here is a common, concrete situation. You are consulted by a woman 50 years old. She complains physically of headache and backache, of palpitation of the heart, and mentally of unhappiness. It might be anything. A thorough physical examination is made, and now the following information is before you. She is somewhat underweight and fatigued, the urine shows a trace of albumen, the blood pressure is 150 systolic, there is an old cervical tear, and the womb is moderately retroverted. The large bowel is somewhat atonic, one tooth is infected, and probably she is at the climacteric.

How will you proceed? Naturally, every physician will insist that the organic deviations be corrected and treated, but after this it seems to me that the therapeutic attack will be determined by the physician's innate beliefs concerning the real nature of such a symptom complex as is presented by his patient who is, after all, one of many similar patients. If he somewhat narrowly regards the brain as the organ of the mind, he may have in his mind a picture of ultramicroscopic brain pathology, possibly with a basis of gonadal disturbance, and may proceed along such lines. If he adheres to focal infection theories, he will expect the removal of the infected tooth and possibly of the infected cervix uteri to accomplish a recovery. If he follows some modification of the school of Weir Mitchell, he will stake his therapeutic hope wholly upon rest, isolation, overfeeding, massage and other physical therapeutic resources. Finally, if he is convinced that here and there in the mass of the individual life experiences of the patient there may be found material that is exerting a harmful effect and is producing symptoms, then he will investigate psychopathologic mechanisms and seek to correct them. In each instance, the symptoms are real, the headache, the backache, the fatigue, the unhappiness, but their explanation and treatment differ very markedly according to the convictions of the attending physician. Now we have arrived at a position embracing the following points: (1) There is a mind, the operations of which are not conscious. (2) This mind is the locus of extremely

CONVERSION HYSTERIA

In conversion hysteria the mechanism is relatively simple. There is the deep-seated conflict, the clash between irreconcilable drives calling for opposing courses of conduct. There are innumerable varieties of conflicts. In the so-called "shell-shock" of modern warfare, which is conversion hysteria, the conflict is between the deep-rooted and dominant instinct of self-preservation and the expectations and the demands of soldierly ideals and conduct, bravery and disregard of life. The hysterical reactions are protective—blindness, deafness, paralyzes, and many other symptoms.

A young woman, after much badgering by her family, finally consented to marry a very wealthy old man. As she approached the altar she fell to the floor of the church, completely paralyzed from the waist down. She was in love with a penniless young sailor.

Hysteria is a simple, naïve, childlike device. It is almost like the expedient of a little child who closes his eyes to keep away the bogey man.

Neurasthenia and anxiety states are much more complicated in their mechanism. The disturbing situation or conflict is not driven very deep into the not-conscious. It is fairly close to the surface. Furthermore, neurasthenia and pathologic anxiety usually require a much longer period for their full development. During this preparatory phase, the mind is fatigued by the conflicting emotions; possibly the resistance of the body is lowered, and the emotional strain is expressed in the form of various physical sensations, fatigue, heart palpitation, muscular soreness, nausea, weakness and the like.

As an illustration we may take a page from one of my case records, a quarrel between husband and wife. The husband is accusing the wife of sexual indifference and frigidity. It is an oft-repeated scene. He has accused her many times before. But this time he is more angry, more vehement and even somewhat threatening. The wife defends herself. In turn she is apologetic, tearful, angry. The husband leaves to go to his work. The wife feels tired, her heart palpitates, her muscles are sore, she is nauseated and weak. She has felt this way before, but this time the physical sensations remain. More or less constantly she continues to feel weary, sore, nauseated, and often her heart palpitates. Other and more distressing sensations are added. She becomes interested in these sensations, complains about them, analyzes them, wonders what they signify. Does she have this or that disease? Is she about to have a stroke? In truth her body is sound enough organically. She has *neurasthenia*.

activated into contradictory conscious conduct, the individual not being aware of the incongruity and the contradiction.

When the symptoms belong to the obsessive-compulsive group, it is helpful to think in terms of a mechanism of *displacement*, *substitution* and *symbolism*.

If a stone is dropped in a tumbler brimful of water, some of the

RATIONALIZATION

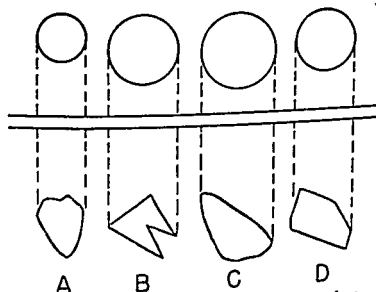


FIG. 11. A mechanism by which unsatisfactory and unworthy motivations (A, B, C, D) are "changed" and appear in consciousness as satisfactory and worthy.

water runs over (displaced by the stone); the stone takes the place (substitution) of the displaced water and finally the stone represents (symbolizes) the water. An experiment is often performed in the laboratory on animals. If food is shown to a dog, saliva begins to flow, and the flow may be measured accurately. If, simultaneously with the exhibition of the food, a bell is rung and this is repeated a number of times, then finally the mere ringing of the bell, without the food, serves to initiate the salivary flow. Colors and sounds may be utilized similarly. Animal psychologists have built up a large series of experimental observations on such phenomena.

Translated into psychopathologic terms, the following situation might be considered illustrative. A woman is made deathly sick

important pathology—a determining psychopathology. (3) Such psychopathology results from irreconcilable drives which dictate opposing courses of behavior. (4) When an impasse is reached, the conflict may be changed or converted into functional signs and symptoms. (5) According to the personality of the patient, various mechanisms are utilized. They not only shape the functional symptoms but also disguise their real purpose.

Mechanisms. A few of the mental mechanisms are *repression*, *regression*, *rationalization*, *projection*, *introjection* (*identification*) and *segregation*. *Repression*, or active purposeful, though unconscious, ‘forgetting,’ is a basic mechanism without which a real psychoneurosis cannot occur. The whole group of dissociative symptoms which follow in the wake of repression are of the utmost importance, since in order to deal effectively with functional illness one must penetrate beyond the veil of deceptive surface symptoms.

To *regress* means to go backward. It signifies a return to a former somewhat primitive and rather childish type of behavior which has as its object the domination by the individual of some life situation. *Rationalization* is a highly effective but pathologic device which enables the neurotic patient to escape the disapproval of his own self ideal and the condemnation of the herd by so camouflaging and bedecking unworthy motivations that even to that sternest critic, his own ego, they appear satisfactory and even praiseworthy. Both *projection* and *introjection*, particularly the latter, are active mechanisms in the genesis of functional disease; they both give the patient a pathologic security. *Projection* does this by attributing innately determined difficulties to externals, i.e., people or conditions; *introjection* does so by merging or identifying the unsatisfactory self with others. *Segregation* or separated thinking and acting means that often our mental right hands do not know what our left hands are doing. It explains many of the inconsistencies and contradictions in our personalities. In literature, there is the classical example of Dr. Jekyll and Mr. Hyde. In the psychoses and the psychoneuroses, there are many examples of segregated thinking and acting, for instance, the schizophrenic, who firmly believes that he is the ‘Lord of the Universe’ and yet sees no inconsistency in retrieving cigarette butts from the grounds of a public mental hospital. These and other mechanisms of defense must be run to earth and removed, or at least modified, if the patient is to overcome his neurosis. Figures 11, 12 and 13 attempt to visualize the operation of rationalization, projection and introjection (*identification*). Segregation need not be diagrammed. Two or several separate and contradictory behavior drives in the ‘not conscious’ mind become

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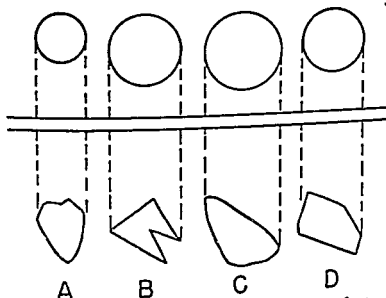


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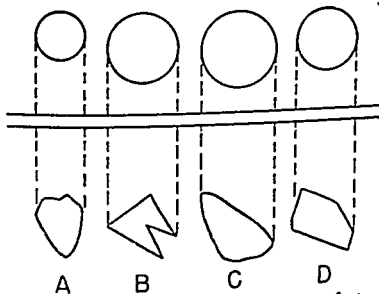


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Translated into psychopathologic terms, the following situation might be considered illustrative. A woman is made deathly sick

with distressing nausea at the sight of a red rose. The facts of the case are these. Many years before she was betrayed and subsequently jilted by her lover. On the night of their last meeting, she wore a red rose that he had given her. She never saw him again. Originally, the actual happening, that is, the jilting, the dishonor

PROJECTION

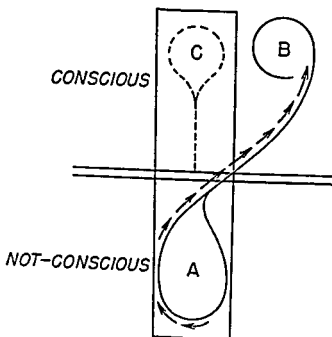


FIG 12 (A) Latent homosexuality projected outside the individual to B, thus avoiding the insult to the ego, which would occur if the complex were faced in consciousness at C. Instead of being forced to say, 'I am perverted,' the patient may now say, 'They say I am perverted.'

and the betrayal were closely linked in open consciousness with the resulting unhappy emotions (sorrow, shame, anger). After some time, the conscious mind and the personality could no longer bear to remember. Then the original and painful idea is displaced from the emotional reaction with which it had been joined and drops into the not-conscious mind where it is not accessible to memory. This leaves free in consciousness the emotion, to which the idea was affixed. The free emotion becomes coupled with another idea which in itself is neither unpleasant nor painful. In the cited case, the idea was "red roses." Thus the thought "red roses" becomes a sub

stitution, as it were, a concealment, for the unpleasant memory of the jilting and the betrayal and a symbol for it. The new union is not secure. The thought of the original happening tries to push back into consciousness, and whenever there is danger of its being

INTROJECTION (IDENTIFICATION)

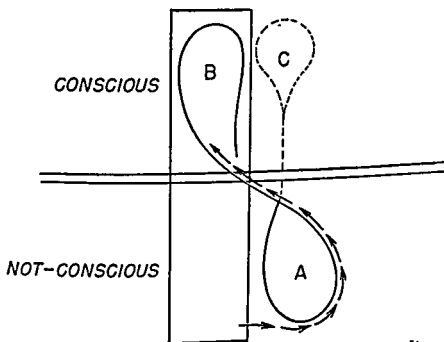


FIG. 13. The opposite of projection. The individual takes qualities, assets, virtues, etc., which he does *not* possess (A) and regards them perhaps in daydreaming and fantasy as part of self (B) while actually they are "outside" his own personality (C). A normal mechanism in hero-worship. Both projection and introjection occur as pathologic mechanisms in psychotic and psychoneurotic reactions.

remembered (as there is at the sight of a red rose) then there is nervous uneasiness, tension, anxiety and the sensation of physical sickness and nausea. The patient develops an obsessive fear of red roses, so that she avoids walking on streets where there are florist shops, and if she suspects that there is a red rose in the house she screams and dashes out into the street.

From all this there is a moral for mental hygiene. Emotions must be somewhat desensitized. At some time in life every one of us is embarrassed, humiliated, frightened, shamed and, occasionally per-

haps, even disgraced. If our only concern is to forget or to repress the disagreeable happening as quickly as possible, then we are in danger of retaining unattached emotions, which may be stirred into disquieting activity every time they come into contact with the object or the thought that has become the symbol for the repressed idea. A moderate amount of thoughtful consideration of the whole affair, possibly a sensible effort to repair some of the damage to self, a willingness to accept the situation frankly, and the intention to profit by the lesson the experience teaches, may all combine to avert the danger resulting from the retention of highly charged emotional fragments.

The so called "*sense of inferiority*" recurs with such frequency that it deserves special consideration. A sense of inferiority usually begins in childhood and is, in effect, an idea or a set of ideas, strongly bound together emotionally, that makes us feel inferior to or in some way less than our fellow men. We may be clearly aware of our own personal belittlement, we may recognize it faintly, or we may be totally unconscious of it, though it obviously expresses itself in our everyday behavior.

Disappointment, failure, defeat and infirmity are the seeds of the inferiority complex. We hate to be neglected, to remain unloved, to be relegated to a lowly position. We desire to succeed, to master difficulties, to feel strongly. Success is usually rewarded by the palm of security; failure made worse by the agony of insecurity. The basis of inferiority may be physical, environmental, or mental, or a combination of the three.

The patient who has a sense of inferiority cannot stand still psychologically. He must go either forward or backward. A common method of retreat is the development of functional illness. The illness is very apt to be the last line of defense, the final fortress of the mind, after more direct efforts at compensation have failed.

Without help, the inferior is likely to drift into one or another of several unwise compensations. There may be the cultivation of fancied superiority. There may be the creation of fictitious goals, far beyond the capacity or the endowments of the patient. In the effort to disarm the ego, the so called specialist attitude may be adopted and there may be the cultivation of odd, bizarre, esoteric and impractical interests. For a time the patient may tread the path of opposites and obtain false and temporary security by damning those things in life which he really envies and desires for himself. Finally, he may utilize the magic wand of fantasy and find relief from the nagging sense of inferiority by playing the game of unreality. Whatever method among these he may choose or adopt

unconsciously it is rather sure to prove to be inadequate in the long run. The patient is then in a psychological situation where a neurosis, and possibly even a psychosis, may come to his rescue. Conceivably, a psychosis through its very symptoms may be self-corrective, but in a neurosis the inferiority must be traced to its sources before the patient can make much headway and before constructive compensation can be put into successful operation.

Perhaps sufficient foundation has been laid to prepare for the discussion of the psychoses in which functional dynamics are prominent and particularly for a consideration of the psychoneuroses.

MANIC-DEPRESSIVE PSYCHOSES

Etiology. Manic-depressive psychoses are more common in women. In incidence, manic-depressive is exceeded only by schizophrenia. Its peak is in the fourth and the fifth decades for women and slightly later for men. It is more prevalent in cities than in rural districts and appears particularly in Jewish and Negro women. The constitutional impress is deep in manic-depressive. In one-fifth of Vogt's cases, the psychosis had been present in one of the parents, and in 35 per cent it appeared in the patient's siblings. In a considerable number of patients, predisposition reveals itself as depressive, manic, irritable and cyclothymic ("up and down" as dys-tonic) dispositional markings. Perhaps the most significant contribution to the etiology of manic-depressive psychosis is the delineation of the pyknic habitus, with its fairly well-defined somatic and extroverted personality traits. (See page 68.)

Interpretation. I have been impressed by the frequency of cases in which the manic phase appears to be a compensation for the innate and environmental inferiorities of everyday living. In itself, the manic phase is a declaration of individual power and dominance. In the display of emotional, thought and motor activities, not only does the patient demonstrate that his inhibitions are in abeyance, but also he attempts to brush aside with scornful aggressiveness and violence the slightest opposition from the environment. Concretely, one often sees a particular compensation for a belittlement and humiliation of previous life. Thus, a young woman who did not attain her ambition to become a professional singer, whose first public appearance was a humiliating failure, developed manic-depressive, and in each manic attack she was the "greatest prima donna of all times," holding enthralled "vast audiences" by the "liquid magic" of her voice.

Dr William A. White presents one aspect of the psychopathology in manic depressive as follows

Manic depressive psychosis is the type of extroversion reaction. That is, the patients instead of turning within themselves (introversion) try to escape their difficulties (conflict) by a "flight into reality." This flight into reality is the manic phase of the psychosis with its flight of ideas, distractibility and increased psychomotor activity during which the patient seems to be almost at the mercy of his environment, having his attention diverted by every passing stimulus. The great activity can be understood as a defense mechanism. The patient appears, by his constant activity, to be covering every possible avenue of approach, which might by any possibility touch his sore point (complex) and so he rushes wildly from this possible source of danger to that, meanwhile keeping up a stream of diverting activities. He is at once running away from his conflict—into reality—and trying to adequately defend every possible approach. On the other hand, a study of the manic productions will disclose the fact that they refer to, they reanimate, so to speak, longed for situations of the past, the memories of which have been repressed. So in this sense, the manic is an ambivalent reaction, rushing into reality on the one hand, but on the other developing, under the cloak of hyperactivity and flight of ideas, a wish fulfilling drama in which the forbidden thoughts come to expression.

The manic-depressive psychosis is seen, therefore, not to be characterized so much by the nature of the difficulty (conflict) with which the patient has to deal, as by the way in which he deals with it. This method I have described as "flight into reality," which is the characteristic of the manic phase, while the failure to deal adequately with the difficulty is manifested by the depression of the depressive phase. In depression, the defenses have been broken down and the patient is overwhelmed by a sense of his moral turpitude (self accusatory delusions).

Freud and other observers have called attention to the analogy between normal grief and mourning and pathologic depression. In morbid melancholia, the loss of the love object is unconscious. In normal sorrow, the path to consciousness is open, therefore, sooner or later, the bond with the lost object of love may be severed and life taken up anew. In psychotic depression, the road to consciousness is closed. Freud's hypothesis of the "id" (the reservoir of instinctive energy, often primitive in its demands), the "ego" the adaptive mechanism and, in a sense, the personality), the superego (the ego-ideal, the ethical layer, the self-critique) provides this explanation of pathologic depression. "The superego has taken possession of the entire sadism of the individual, rages against the helpless ego that acknowledges its guilt and submits to punishment (Oberndorf)."

In visualizing Freud's id-ego-superego hypothesis, they must not be regarded as occupying separate compartments in the psyche,

but rather as communicating with each other, merging into each other and reacting upon each other. (See Fig. 14.)

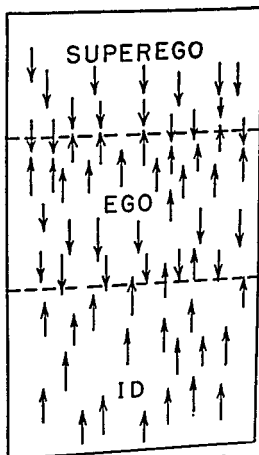


FIG. 14. In visualizing Freud's id-ego-superego hypothesis, these units must not be regarded as occupying separate compartments in the psyche but rather as communicating with each other, merging into each other and reacting upon each other.

Somatic Pathology. The somatic pathology uncovered in manic-depressive is not specific, but it would be premature and unwise to dismiss it casually. Psychogenesis has scarcely explained the periodicity of the psychosis, its abrupt, spontaneous appearance without evidence of significant precipitating situations in the environment, and inheritance factors.

Various findings have been reported: disturbed carbohydrate and lipid metabolisms (McFarland and Goldstein); albuminuria and low or absent HCl in depression; high metabolic rate; leukocytic increase, rise in temperature and pulse rate in mania, higher blood pressure readings in both mania and melancholia (Torsten

Sonden), increased passage of bromide into the spinal fluid from the blood, notably in agitated depressions (Rothschild and Malamud), retarded visceral function, especially gastro intestinal with a tendency to ptosis in depression and the reverse pattern in excitement (Henry), at autopsy and in neuropathologic studies frequently there is evidence of

over compensation in the cardiocirculatory system, hemorrhages into the thyroid gland, adenomatous tendencies in the pancreas, pituitary adenoma, hyperplasia of the cortex of the adrenal and punctuate hemorrhages, pituitary atrophies, large testicles and in general an increase in the size of the endocrine apparatus. Contrasted to schizophrenia, tuberculosis is quite infrequent. Generally speaking the physical characteristics indicate a somatically dynamic individual*.

Year by year, new details are being added to the data of the manic-depressive pattern at the somatic level. Psychiatrists who have had much experience frequently call attention to the fact that a patient who has passed from a depressed into a manic phase usually looks years younger, and every somatic functional activity seems to be operating at its very peak. Certainly in this energizing, the adrenal, other ductless glands and indeed the entire body is involved. It seems likely that eventually there will be etched in a psychosomatic pattern profiling manic depressive psychosis.

The physician will gain a clearer perspective if he surveys the symptomatology of manic depressive psychosis from the plateau of the meaning or the purpose of the symptoms: the decided attempt at overcompensations for personal inadequacies and environmental disappointments of mundane life, the frantic effort emotionally, and in a psychomotor sense, to assert power and escape the awareness of belittlements and, in depression, the unconscious setting aside of self as "supremely" sad and sinful.

In mania there is an attitude and general behavior and in the stream of thought and speech the exhibition of an enormous energy drive, constant and severe motor activity, destructive and violent tendencies, and unceasing flow of speech with distractibility and flight of ideas, singing rhyming profanity, obscenity, etc. In depression the patient is inactive, sometimes almost motionless, head sunk on the chest, the posture one of hopeless dejection. Thought and speech are difficult, limited, repetitive or absent—there are present *retardation*, *poverty of thought* and *mutism*. The mood is kaleidoscopic and abruptly oscillating in mania—euphoria, exhilaration, exaltation, grandiosity, pride, irritability, anger, hate, homi-

* Strecker and Ebaugh. Clinical Psychiatry, Philadelphia, Blakiston

cidal rage, etc. In depression the emotional reactions are more fixed—feelings of inadequacy, sadness, dejection, misery, acute mental agony, and suicidal thoughts and attempts. Fear is not an unusual admixture of depression.

Content of Thought and Special Preoccupations. Delusions are common. In mania, they are transient and fulfill wishes not satisfied in normal life. In the depressive phases, the delusions are more tenacious with depressive content, ideas of personal unworthiness and self-blame, hypochondriacal and somatic delusions “unpardonable sin,” often referred to sex practices in childhood, “deserved” and horribly cruel punishments and tortures, “no stomach,” “stuffed intestine,” “rotten organs,” “dried-up brains,” etc. Many of these delusions lead to the patient’s refusal to eat. Illusions are often present, chiefly in very active mania with the deliriouslike flight of ideas and in depression as a component of apprehension.

Hallucinations are much rarer in manic depressive than in schizophrenia, occurring in less than 20 per cent of the cases. *Ideas of reference, suspicions and paranoid persecutory delusions* are more usual than is commonly believed, particularly in the group of climacteric psychoses.

Sensorium, Mental Grasp and Capacity. Generally speaking, manic-depressive is a relatively “clear” psychosis, but in the hypermanic stages and in severe depression there is apt to be confusion, clouding of consciousness and uncertain orientation.

Insight. Usually, patients, particularly in depressions, have some appreciation of the fact that they are mentally ill, although in mania they are usually flippant about it (“Sure I’m a nut, so are you”) or often pretend that they are quite sane.

The clinical pattern that has been given is that of average “acute mania” and “acute depression.” The departures encountered will be in an upward and downward direction. Of greater intensity, there will be *hypermania* and *stuporous melancholia*. Hypermania shows a marked intensification of the emotional and psychomotor symptoms so that delirium is strongly suggested. It carries with it the danger of exhaustion. Stuporous depression in its deeper portrayal is an almost complete cessation of reaction, motor and mental, to pain and emotional stimuli, seemingly with interruption of thought activity and mutism.

In the direction of less intensity, there are *hypomania* and *simple retardation*. In simple retardation, usually there is not decided depression but there is apt to be lack of initiative and spontaneity, some loss of the “savor” of life and, usually (prominently), sluggishness and retardation of thought. In hypomania, there is less dis-

sonality, the combination of perfectionist and New England conscience. There is scarcely enough resistive strength to turn away the increasing number of outer and inner thrusts. No longer can the integrity of the total personality stand up under the lash of an overdeveloped and unrelenting superego. Too often, such individuals are through with fighting and accept the *coup de grâce* of a psychosis.

All in all, the climacteric, not only for women but also for men, is an epoch of insecurity. It carries with it a triple threat: (1) somatic, notably cardiovascular, pelvic, chemico-endocrino-metabolic; (2) environmental, such as the increasing likelihood of failure to attain success in life, financial reverses, disappointments, family worries, and the increasing toll of relatives and friends taken by death; (3) the inner psychic turmoil and perhaps disaster wrought in a vulnerable personality.

Etiology. The addition of a few facts, largely statistical, more or less completes our etiologic information.

The sex ratio is about 3 women to 1 man.

The age range in women is from about 40 (or even earlier if there has been an artificial menopause) to about 55; in men, roughly from 50 to 65.

Often it seems that the "step" from climacteric to psychosis is a relatively short one. In other words, even within the so-called "normal" range, it is not unusual to find patterns of jealousy, rapidly shifting emotional states, mild depressive reactions, impulsiveness of conduct, marked irritability, hypochondriac sensations.

It seems to me that before completing an utterly drab picture, I should paint in a few bright lights. In one sense, it is true that the climacteric is the beginning of the end, but it is a "long last" and, likewise, it is true that only in its accomplishment and, perhaps, for a subsequent decade, is a peak attained. It is the mature peak of intellect, emotion and experience. Often, in the Europe of the past, intelligent women in this age epoch directed and, indeed, sometimes dominated to an amazing degree the political and cultural movements of the day. This has been far less true in the United States, where advertising propaganda has erected a pedestal and placed upon it a "boyish, slenderized form of flaming feminine youth" whose development from the neck up will require many years before it is consummated. Somewhat feebly perhaps I have lifted this lance of argument and promise against the "old wives' tales" to their daughters—that at the menopause they are apt to "go insane," that at that time their husbands will lose interest in them and seek the

tractibility and less intense emotional swings than in acute mania. The patient's thoughts hang together fairly well. There is a plethora of words but the 'plans' they describe are not often practical and often are fantastic. The mood is irritable and sarcastic if any opposition is expressed. The egotism is colossal, but sometimes there may be an inkling of insight into it. One of my patients made a crude machine of pasteboard. She said it was an "I-ometer" and she pretended to register it every time she made a reference to self. If it had registered, it soon would have been worn out.

Manic depressive psychoses are very recurrent and show the greatest variety of episodic patterns. There may be a single attack of excitement or depression or two or several attacks of only one of the phases with many years of quiescent normality between phases. There may be alternating cycles, each cycle composed of a phase of mania and a phase of melancholia, there may be double alternating cycles, there may be a series of excitements or depressions spaced by quiescent periods. In fact, any pattern may obtain. Thus, manic depressive may be relatively benign or, at the other end of the scale, it may be malignant as in so called 'circular insanity' where excitement follows depression, and depression follows excitement without intermission, throughout the greater part of a life time. Usually manic depressive begins with a depressive reaction.

Treatment will be discussed after the consideration of Involutional Melancholia, and in Chapter 11, Treatment, Including Psychotherapy.

INVOLUTIONAL MELANCHOLIA

Obviously, there are particular dangers and risks peculiar to the epoch of the climax and obviously, too, they are either preponderantly somatic or preponderantly psychic.

The flexibility and the endurance of young tissues no longer exist, and the pelvis, the heart and the circulatory apparatus, and the metabolic chemistry all become increasingly vulnerable.

The armor of the psyche begins to wear a bit thin. If there is a considerable flaw in the resistance of the personality, it may mean a dangerous exposure. There is the encroachment of the many liabilities, intrinsic and extrinsic, of the climacteric. The period of regression has begun. Life cannot be lived over. Gone forever is the resiliency of youth. The mistakes of the past must stand. It is not at all remarkable that a usual accompaniment of the menopause is a certain amount of anxiety, apprehension and indecision.

Definitely imperiled is the rigid, meticulous, slave to detail per-

have passed out of my rectum. There is nothing in between. There is nothing left but hands and feet and eyes. This is a miracle—no breath—or anything—Oh, God!—not an earthly thing is left.”

Motor State. Here, as has been indicated, there is a range from mere restlessness to frenzied agitation.

Consciousness and Orientation. All in all, these functions are amazingly little disturbed, and frequently a patient will interrupt a delusional outburst in order to observe with clarity and report with accuracy some trivial incident that has occurred within the range of her vision.

If one could stop here it would be well and good, but one cannot. There are innumerable modifications of this clinical picture. Only a few of these modifications may be mentioned: feelings of unreality; nihilistic, delusional conceptions; ideas of poverty, katatonic * phenomena; many emotional shadings including pessimism, irritability, sarcasm, irony, sadistical attitudes, hallucinosis and, finally, paranoid trends, often well developed and systematically presented and with a considerable sexual content.

These modifications and sometimes distortions of the original pattern have led to the inclusion of a vast amount of allied and alien clinical material. Thus, there have been included at the earlier end of the age scale many late schizophrenia reactions and, at the later end, arteriosclerotic reaction types.

This is not laudable psychiatry. Naming things too soon, before sufficient information has been acquired, blocks the accumulation of knowledge. Hair-splitting discriminations, with the addition of high-sounding nomenclature, have not really opened up the unexplored areas of the territory of the involutional psychoses.

The so-called *reactive depressions* constitute a significant exception. Since they probably do not carry with them the constitutional implications of manic-depressive, it is important that they be clearly distinguished. They are marked chiefly by the fact that they are severe emotional reactions to real and disruptive life situations, and the connecting thread between the “cause,” i.e., the life situation, and the “effect,” i.e., the depression, remains unbroken in the mind of the patient for a long time and, not infrequently, is never lost. (See p. 36.)

* Many katatonic symptoms have been noted in depressions, particularly in climacteric psychoses. I have reported fixed attitudes, negativism, cataplexy, stereotypy, grimacing, mannerisms, automatic movement, etc. Also, in the same group of patients, I have observed refusal of food, impulsive violence, resistiveness, destructiveness, violent scolding, unapproachability, mutism, and retention of urine and feces.

company of younger and more attractive women and, in short, that it is a direful and calamitous period of life

Symptomatology. Do the involutional psychoses, particularly involutional melancholia, belong to the manic depressive group? I may shortly be in deep clinical water but, if I could restrict myself to the following simple characterization of involutional melancholia, no great difficulties would be encountered

1 It is a psychosis occurring during the "time" of the climacteric—"time" being interpreted flexibly from the standpoints both of the age and the duration of the process

2 There is no history of any previous manic depressive episodes

3 There is a clinical pattern in which motor retardation is replaced by motor overactivity, ranging from restlessness to frenzied agitation

4 Usually, there is a history of a rigid, meticulous, overscrupulous personality

The depression is as deep, or even deeper, as is witnessed in the depressive phase of manic depressive, the self accusation is often more pronounced and the suicidal trends more dangerous, since there is less apt to be the paralyzing effect of retardation. In a considerable segment of the patients the ideational processes are active with a rich association of ideas but in even a larger segment there is poverty of thought. Although the patient may be vocally energetic, the language is largely repetitive, i.e., "Oh, my God!" or "My God!" etc

The leading symptomatic motifs in an average instance of involutional melancholia may be summarized briefly as follows

Emotional State This is characterized by marked depression, often presenting strong admixtures of apprehension

Self blame and self accusation are usually quite severe. There are apt to be interesting admixtures of the grandiose: this has not received sufficient clinical attention. One patient in a state of frenzied self accusation tells of the punishment she will receive "I am to be boiled to death in a solid gold kettle!" There is another patient who, failing to produce horror and disgust in the psychiatrist, invariably concludes her story of her vile sexual life by describing with much histrionic effect "the night when I had sexual relations with forty-three Russians"

Somatic Delusional Formation This is frequently a part of the clinical picture and varies from hypochondriasis to the expression of gross somatic delusions "Everything gone—everything out of me, no stomach, no lungs, no insides, just a shell. All my organs

less favorable. Furthermore, it may be said that, in general, toxic factors and pronounced physical disease promote regression and interfere with adequate effort at rehabilitation.

Before the use of electroshock therapy, involutional melancholia was a lengthy psychosis often lasting several years. Only about 23 to 40 per cent recovered; 25 to 32 per cent became chronic; about 1 of every 5 committed suicide or died of intercurrent disease. These statistics have been much improved by electroshock. So, too, have the former unfavorable prognostic indications (more than one-year duration, cerebral arteriosclerotic symptoms, insufficiency of affect, peevishness, auto-erotic behavior, gross somatic delusions) been rendered less unfavorable.

TREATMENT OF MANIC-DEPRESSIVE PSYCHOSES AND INVOLUTIONAL MELANCHOLIA

Every patient should have a thorough examination and, whenever feasible, foci of infection should be removed, morbidities corrected, and their damaging effects lessened.

The majority of patients, at least at some stage of the illness, must be treated in mental hospitals and sanatoria.

Manic-depressive patients need much help and protection. Suicide is a considerable risk, perhaps greater when the patient is seemingly improving and during convalescence, since supervision may be relaxed at this time. Visitors who argue with patients or attempt to "cheer them" with Pollyannalike bromides should be tactfully discouraged from visiting. Manic patients in their headlong activity sustain many bruises, abrasions and lacerations which must be treated promptly to prevent infection. Manic patients should be protected against the consequences of their erotic tendencies. There should be precautions against the danger of swallowing all manner of articles—pins, needles, screws, nails, hairpins, corset steels, etc. (manic patients do this mischievously, and depressed patients do it with suicidal intent); bladder and bowel functions must be watched carefully, since laxatives, enemata and catheterization are often required.

Nutrition. Nutrition must be watched carefully. The manic patient may be "too busy" to eat or may devour food voraciously and unwisely, and depressed patients may refuse to eat or take next to nothing. From time to time, especially in depressions, artificial feeding may be required. Nasal feeding is the more satisfactory, and a well-balanced diet may be given via the tube, so that the patient actually gains weight.

Course and Prognosis. The first attack is usually a depression, likely to occur between the ages of 15 and 25, and is generally short-lived, about three months. The outlook for recovery from individual attacks and cycles is quite good, with little or no residual damage, unless there is the intrusion of a complicating factor such as arteriosclerosis. The recurrent tendency is marked, and often the attacks become longer and more severe and the quiescent intervals shorter. Gross somatic and nihilistic delusions and a prominent schizophrenialike clinical segment are unfavorable but hallucinosis is not.

I have observed that (1) the recovery rate is higher in the Jew and the Irish and lower in the mixed American types. (2) With initial onset before 40, the recovery rate was higher than when it occurred later; and with the onset before 30, the prognosis was better in the proportion of 7 to 3. (3) When manic phases predominated, the prognosis was better. (4) The outlook in the mixed forms, agitated depressions, was somewhat better than in the other forms. (5) The majority of deaths were circulatory. (6) In the unrecovered group there was 28 per cent direct psychotic ancestry (parents) as contrasted with 8 per cent in the recovered group. (7) From the personality studies it seemed fair to draw the following conclusions: First: That the possession of a personality of purely clinical type (the type which one would naturally expect to develop an affective psychosis, i.e., cycloid) did not necessarily indicate a favorable prognosis. Second: Patients revealing identification and projection in marked degrees had a poorer prognosis than those who did not evidence such mechanisms. Third: Predominantly, oral traits in the prepsychotic personality were indicative of a poorer prognosis than predominantly anal personality characteristics. (8) While no one previously acquired disease or group of diseases may be said to predispose to psychotic chronicity, yet, the evidence of somatic disease was more frequent in the unrecovered patients. Such factors as severe and repeated infectious processes and widespread or recurrent organic disease tend to weaken the reserve force of the patient, prevent adequate compensations, and may favor the development of a morbid exhaustibility predisposing to more regressive types of reaction. (9) From the standpoint of the psychotic content the appearance of paranoid trends, somatic delusions, suicidal trends and stupor were relatively unfavorable prognostic elements, while frank erotic reactions and psychoneurotic reactions did not unfavorably influence the outlook. (10) From the standpoint of the somatic content of the psychoses, the cardiovascular-renal disease complex rendered the outlook for recovery

less oppressive and sometimes transmuted into faint stirrings of hope which may grow into recovery

I knew the instance of a talented woman, a sculptress, deep in the throes of a profound melancholia. Retrospectively, she told of being tormented almost constantly by horrible suicidal thoughts, always with the content of finding death by breaking her neck. She was induced to try her sculpturing again. Finally, she completed a beautiful figurine, a female figure *head thrown back at a right angle to the body*, long hair streaming down the back. The completion of the figurine was the beginning of the end of the melancholia. Soon the patient was well. Later, she confided that the suicidal thinking and planning had passed out of her into the modeling clay. (The psychotherapy of occupational therapy will be discussed more fully in Chap. 11.)

Nursing Care In order to nurse manic depressive patients successfully, the nurse needs much more equipment than skilled nursing technics. She needs, too, more than the wit to keep one step ahead of the mischievous proclivities of the manic patient and the forethought to circumvent the suicidal planning of the depressed patient. A nurse is with the patient almost constantly. It is of the utmost importance not only that nurses be skilled in psychiatric nursing technics but also that they have an adequate understanding of the psychopathology of the involuntional psychosis. Unless they are thus equipped they cannot combat intelligently the attempt of the patient to remain under the cover of unreality, nor can they be effective in assisting the physician in leading the patient back to reality.

Psychotherapy In the large majority of instances patients are not accessible to anything but the simpler forms of psychotherapy. However, it is a mistake to underestimate the importance of simple reassuring and suggestion therapy. Many recovered patients testify to the courage they derived from reiterated suggestion and reassurance.

At least, during the attacks it is doubtful if formal psychoanalytical treatment is advisable. However, in carefully selected situations modified psychoanalysis or other intensive psychotherapy between the psychotic episodes offer some chance of lessening the likelihood of recurrence.

Preventive Therapy It is probably feasible during childhood to strive to gain for the child a working balance between extroverted and introverted qualities of personality. Much sound work has been done with various technics designed to *socialize* quiet, shy, "daydreaming" *introverted youngsters*. Inculcating a reasonable

Sleep, Exercise and Physiotherapy. The object should be to obtain sufficient sleep by the aid of the neutral bath and other hydrotherapeutic and physiotherapeutic measures. However, it is practically always necessary to resort to a certain amount of hypnotic (not narcotic) medication. Depressed patients are very inactive, and provision should be made for exercise, if necessary by passive movements. Massage is helpful.

Pharmacology. In addition to hypnotic medication, there are many clinical areas in manic depressive territory in which drugs may be used effectively. In a small group of depressed patients my associate, Harold Palmer, and I have had encouraging results from the employment of haematoporphyrin (Photodyn) given orally, particularly in conjunction with ultraviolet irradiation. Apparently, the permeability to light absorption is increased. If there are no contraindications, such as hypertension, small doses of benzedrine sulphate (5 to 15 mg daily) may be helpful in the retarded depressions. Although the administration of Theelin, progynon stilbestrol, and other estrogenic substances sometimes give good results in some of the climacteric psychoses, yet researches have not yet progressed much beyond the point represented by this statement. Endocrine therapy still gives more promise than fulfillment, but the promise is a valid one. Even though the clinical course is not much influenced, yet, stilbestrol given orally to women is capable of producing estrin saturation,

as evidenced by the changes in urinary A.P.H. and estrin values, by the induced uterine bleeding and by other clinical signs of estrin effect.

Testosterone administered by intramuscular injection in male involuntaries is capable of producing sexual stimulation, a general improvement in physical well being and may reduce symptoms arising from benign prostatic hypertrophy. Its beneficial effect in the psychotic states is questionable but some improvement has been noted in two men with early involutional melancholia.

Parathormone administered hypodermically in twice daily doses of 50 and 100 units, together with calcium and ammonium chloride, increases serum calcium levels. This therapy has no effect on the clinical course of the disorder.

Occupational Therapy. Unquestionably, occupational therapy is the most fruitful treatment adjunct. The nature of the finished product is not important. Important are the facts that energy that would be uselessly or even destructively expended by the manic patient is turned into interesting channels, that the work is a hostage to the reality to which it is hoped that the patient will be returned, and that gloomy, foreboding and suicidal thoughts are made

vironment His psychosis is a highly intricate, unconscious escape mechanism All the symptoms of schizophrenia support the retreat from reality and carefully guard even the outposts of his mental isolationism Indeed, long before the actual mental symptoms appear, the individual has demonstrated in his personality a somewhat quiet, shy, retiring, inactive, not very sociable but often very thoughtful, long-visioned introverted make up Perhaps, also, he may have an "asthenic" or leptic physical habitus

It should be emphasized again that there is nothing abnormal or pathologic in being an introvert, any more than in being an extrovert However, as the decided extrovert is potentially the victim of manic depressive psychosis, so is the extreme introvert somewhat prone to schizophrenia Perhaps it will avoid confusion if we designate the former "syntonic" and the latter, "schizoid" It will be convenient to understand by these designations that something innately exists or has been added, in the one instance to the extroverted personality, in the other to the introverted make up This 'X,' or unknown quantity, opens directly the pathways leading into manic depressive psychosis and schizophrenia, respectively

A CLINIC ON SCHIZOPHRENIA

The conception of schizophrenia may be further clarified by presenting a clinic as given by the author *

You have come to understand that although there are wide variations in the expression of schizophrenia, yet, after all, there is a more or less common symptomatic pattern To begin with, the patients all tend to be young Undoubtedly, you have noted that there is something seriously wrong with their emotional lives At present we may go no further than to say that they do not react emotionally as normal people do Neither do they react as do patients who have manic-depressive psychosis Here (in manic-depressive) it is true that the emotional reaction is out of all proportion to that witnessed in normal life but still it is quite understandable Furthermore, you have observed that these schizophrenic patients seem to live in a world of their own This is so apparent that on casual observation one would be inclined to believe that they were completely divorced from the world as we see it One would judge that they did not know the day of the week or have any correct impression as to time Neither did they seem to recognize those with whom they came in contact, nor the place in which they were situated You will remember that it was startling to find out, on close examination that they did know all these things In other words, they were "clear"

On the other hand, it was obvious that they were indifferent and apathetic and, as you know, I compared their attitude toward their en

* Strecker, E. A. M. Clin. North America, 16 1

amount of reflection and forethought before going into action, *into the personalities of overextroverted and overimpulsive children*, should be practical and valuable for their futures. Such training programs conceivably might lessen the danger of manic-depressive psychosis later on in adult life. All in all, the world in which we live is a bit too noisy and extroverted. The majority of human beings would be better off if occasionally they had quiet places in which to think and worthwhile things to think about.

Probably the best insulation against the development of manic-depressive, schizophrenia or any functional psychosis or psychoneurosis is one in which the childhood relationships contain security—promoting love and protection and maturity favoring emancipation.

In the involutional psychoses, preventive treatment has not been stressed sufficiently. At the approach of the climacteric, every woman is entitled to a cardiovascular and pelvic examination and an endocrine survey, every man should have a thorough examination. Advances and researches, important and sometimes brilliant, in the field of endocrine chemistry make excellent prophylactic promise for the future.

In the area of protective, psychologic therapy, there is an opportunity for pioneer mental hygiene. To sweep away the clutter of ignorance, superstition and sexual folklore, which has accumulated around the truth of the climacteric, would in itself be a noteworthy achievement. The physician can be constructively helpful without trespassing beyond the limitations of honesty. I doubt if an attitude of expansive optimism and Pollyannaish preachments along the lines of "business as usual" during the climacteric is truly helpful. True enough, it is a natural epoch, but so is the childbearing period, natural and physiologic, yet many women do lose their lives in childbirth. Actually, the complexities of modern civilization have introduced complicating factors, personal and social, so that the terms "natural" and "physiologic" must be used with considerable reservation in considering the climacteric and in attempts to protect human beings from its hazards.

SCHIZOPHRENIA

From the vantage point of the observation and study of many manic depressive and schizophrenic patients, one is impressed by the sharply divergent behavior in the two psychoses. The manic patient is turbulent and often aggressive, charging headlong against the environment. The schizophrenic *evades* contacts with the en-

baby and child. During his 'teens he was shy, diffident, and reserved, did not like athletics, read a great deal. Liked to be alone in his room, was painfully awkward and embarrassed at parties and was afraid of girls. He did exceedingly well in his studies and had excellent grades in high school and college. In college he had no friends excepting his roommate.

He wanted to study medicine and in 1924 was admitted to a Class A Medical School. His first year was uneventful. Apparently, the second year was hard for him. He complained that the work was difficult, developed headaches, could not concentrate and lost weight. He said several of his professors had it in for him and had him spotted for a flunk.

One night, while alone in his room in a student's boarding house, studying for final examinations, he suddenly leaned out of the window and screamed loudly, "You dirty s—s of b—s stop flashing that light in my eyes." Then he was brought to the psychopathic pavilion.

He has many of the classical symptoms of schizophrenia. Often he is mute, but from time to time he will talk in a fragmentary manner about his persecutors. He calls them mentalists. They disarranged his thoughts so that he could not study medicine! They call him vile names: "dirty dog," "sex pervert," etc. At night they direct a powerful N. Ray at him and rob him of his semen, etc. You will note that as he speaks of these happenings, he is little or not at all disturbed emotionally. He is not angry or violent or even worried as one would expect a man to be who believed himself subject to abuse, torture, and persecution. Often he simpers in a silly fashion, there have been several periods of katatonia during which he was mute, made no response to pinpricks, had to be fed with a nasal tube and would retain his limbs in awkward positions for long periods of time.

You have observed that his coat is decorated with odds and ends of brightly colored trash. On his head he wears an old overseas cap with a tin gilt star pinned to it. Occasionally, he raises his right arm, extending the index finger. From the notes it appears that this indicates that he is "the Highest Potent." In spite of this he does various odd chores about the ward and is not above retrieving and smoking half-consumed cigarettes.

CASE 2

The next patient is a young woman, twenty-three years old. Her father was a ne'er-do-well who served several short sentences in the county jail for various minor offenses. Finally, he was shot and killed in a street brawl. Her mother and two older brothers and one sister are plain, uneducated, honest, hard-working people.

Her mother tells us she was always a "good" girl but very different from her sister who liked boys and parties. Mary, the patient, was always serious and "worrisome." In school she studied hard and "fussed" about her lessons. She went to church a great deal and was very conscientious. She was meticulously neat and clean and modest. She did not even like her sister to see her unless she was completely clothed.

As a child she was not given any sex information and was not pre-

vironment to that of a man who was unable to entirely escape from the contemplation of a play which bored him greatly

We also discovered that many of these patients had curious ideas and believed that various individuals or organizations were seeking to annoy them in many ways and were even persecuting them. Many of these unfortunate patients felt that everything that transpired in their vicinity had a direct reference to them—usually in a derogatory or insulting way. This affected even the most casual happenings and we called this symptom, an *idea of reference*. Again some of these patients had most bizarre ideas concerning the organs of their bodies. They believed for instance that the passage of the throat was sealed, that they had no stomach or viscera, and more frequently, that their sexual apparatus had been disturbed, distorted or misused by malign influences from without. Furthermore the majority of these patients had *hallucinations* which might involve any of the special senses but particularly the sense of hearing. They could hear the voices of their enemies abusing and vilifying them in a most outrageous fashion.

Finally, you were shown an amazing symptom called *katatonia* in which the patient was mute, did not respond to pinpricks and in which his limbs could be placed in awkward positions and seemingly be molded almost as if they were made of wax. Sometimes when these patients broke into speech it sounded like gibberish and seemed to have no relation whatever to the environment. This symptom we designated as *dissociation of thought*.

These are only a few of the symptoms of schizophrenia. They were presented to you as your professor of physical diagnosis might present to you heart murmurs or rales in the lungs. But you would not be satisfied at hearing these curious sounds. You would want to know why the patient has them and what mechanism causes them. So, too, I trust, you are not satisfied with the presentation of even these highly interesting mental phenomena but also you want to know why the patient has them and what is their mechanism. For just as surely as there are mechanisms in back of physical symptoms, so are there mechanisms at the root of the symptoms of schizophrenia. An attempt to understand these curious psychopathologic disturbances might be thought of as an effort to penetrate into the psychology of schizophrenia.

Naturally, the psychology of this disease covers an extraordinarily wide field. I have in mind to give you only a few elementary considerations. First I will present to you a group of patients and together we shall try to break through the surface crust of their symptoms and see if we can find fundamental and dynamic psychopathology. For the purpose of brevity, we will omit everything but the salient features of their histories.

CASE 1

This young man is thirty years old. One maternal uncle committed suicide in middle life but otherwise his family history is negative. His mother, who gave the history, described him as a "quiet" and "good"

He has just told you his story. As you see, it is not easy to follow. To begin with it is very illogical and quite vague. He has talked for about half an hour and there is left in our minds the thought that he has many enemies who are striving to keep him from putting an invention on the market. Furthermore, these said enemies persecute him and injure his reputation by spreading vile stories about him so that he cannot hold a job. He mentioned the names of many men in high positions who are presumably in the plot against him. His persecutors send electric currents into his body, they control his thoughts, repeat his thoughts, make his heart palpitate, at night they scream abusive epithets at him, etc. He doesn't know why they do these things, excepting that they may be jealous of his inventions. As he tells his rambling story, he does not react emotionally as should a man who is being tortured and tormented. When asked if he wants to leave the hospital, he answers "some time." On the wards he is usually pleasant and co-operative with the nurses and is willing to help them do menial routine work. He will not, however, converse with the other patients nor will he sit at the same table with them. He is humored about this and has his own table. In his buttonhole he wears a bit of frayed red cord. When questioned concerning its significance he refuses to answer but it is observed that he often looks at it and touches it. Occasionally, he attitudinizes and stands stock still in a very erect position. He will give no explanation of this.

DISCUSSION

The three cases which I have presented are not in any way unusual. I could show you many similar ones. Let us look a little more closely at the histories of these patients in order to see whether they have anything in common and then let us examine their psychotic life in the effort to uncover at least some of the elementary reasons for their symptoms and behavior.

You will recall that in the brief historical sketches which had to do with their prepsychotic personalities, such adjectives as "good," "quiet," "shy," "reserved," "diffident," "unsociable," "seclusive," and the like, often recurred. If one were to attempt to give in a few words a cross section of the make up of these individuals before they became mentally ill, it might be fair to say that they did not meet reality in their environments readily. They perhaps may be classed as "introverts." Since schizophrenia so commonly develops in the introverted personality, it is important for us to have at least some conception of the meaning of "introvert." It is one of the important psychological factors in the genesis of schizophrenia.

The person who tends to be a thinker rather than a doer is an introvert. Introversion means the turning in of the mind or self onto its own problems. The introvert gets his chief pleasures from within himself, the extrovert, from without. The kingdom of the mind and thought or the external world are their respective spheres. Thought is pale, non vital, unreal, to the one. Action is irrelevant or valueless to the other. The

pared for the first menstrual period. When this appeared she was greatly upset and felt that she had "sinned."

She worked in a stocking factory and did routine work well. However, she wanted to do better, and in addition to her work, she went to night school. This she had to abandon because of poor health. She was bitterly disappointed and called herself a "failure."

She did not get on well with the other girls in the factory. They thought she was "high hat." She did not "know how to talk to them" and was shy and often painfully embarrassed when they discussed their boy friends or told off color stories. She had an acne skin eruption and thought "the girls talked about it."

Her mother states that "Mary wanted the boys to like her and wanted to be nice to them but did not know how." Her sister teased her about this.

One young man did seem to be very fond of her and called a number of times to see her. Following his last visit, Mary became "moody," spoke very infrequently, "stared," and occasionally smiled without reason. One afternoon soon after returning from work, she went into her bathroom, took off all her clothing, and lightly gashed her wrist with one of her brother's discarded razor blades. Then she began to scream and continued to scream for fifteen minutes. Her mother came to her assistance and she was brought to the psychopathic pavilion. This was seven months ago.

Soon after admission she became katatonic and for two months was mute and had to be tube fed. She was often untidy and would lie on the floor with her arms outstretched in the shape of a cross. Occasionally she emitted piercing screams and once talked in a high-pitched voice for about thirty minutes, scolding and apparently answering voices.

During the past few months she had been quiet, the most frequently occurring adjective in the nurses' description notes is "silly." Hour after hour she smiles in a foolish, vapid manner. Sometimes she whispers and when the words can be distinguished, they are "Queen of Heaven," "Heavenly Lover," and "Immaculate Conception."

She will not show any interest in occupation in the shop but helps carry trays in the ward.

CASE 3

This man is older than the other two patients. He is forty-two years old. There is nothing remarkable in the family history. Our records of his early life are not very extensive but we do know that as a boy he was "bright, unsociable, and seclusive," as a young man, "odd, eccentric, antagonistic, and had few friends." He graduated from high school and even spent a bit more than a year in a technical school. He was requested to leave this school after a bitter quarrel with one of the faculty. He has told us that he is an inventor. He was brought to the psychopathic pavilion because six months ago he went to the City Hall, saw the Secretary to the Mayor, and told a confused, rambling story about his persecutions by his enemies.

The introvert, however, has great capacity for introspection. Thought is at once his greatest security and his greatest danger. One may picture the potential schizophrenic at this stage as courting unreality in his daydreams but at the same time realizing that he is listening to the song of the siren. So he continues to struggle, and if his ultimate fate is to be schizophrenia, he loses some small part of his hold on reality almost day by day. Finally comes the time when judged by the criterion of the world as applied to himself, the verdict of failure is unescapable. His ego, still strong, cannot accept the conclusion that he did not succeed because, in truth, he could not face the struggle that is necessary.

Theoretically, we are now at the stage where the psychosis is about to come to his rescue. In this connection, it is interesting to note how often the first outspoken symptoms of schizophrenia are, in effect, unconscious and pathologic excuses for the inability to persist in some field of endeavor and overcome the obstacles which are in the way. For instance, in the three patients whom I have just presented to you this phenomenon was strikingly illustrated. When the medical student came to the end of his mental string, he suddenly leaned out the window and screamed loudly—"You dirty s-s of b-s, stop flashing those lights." The second patient, the young girl, became "moody," "stared" and went into a panic during which she made a foolish attempt at suicide in the wake of her first and, probably, only love affair. The last patient made a scene in the City Hall because he believed himself persecuted on account of his inventive genius.

We have briefly indicated a few of the preliminary psychological considerations which seem to underlie the development of schizophrenia. You will recall that first there is a personality, introverted to a dangerous degree. This personality is badly equipped for coming to grips with reality. Too often the unsuccessful struggle conditions a retreat and a yearning for that world of unreality and phantasy in which no effort is required to make dreams come true. Eventually, even feeble attempts to dominate the real cease and the break from reality occurs. Since the ego must be absolved the blame for failure is projected outside the individual onto others or the conditions of things.

However, the drama of schizophrenia is not yet closed. If this were the end the patient would immediately retire into the ivory tower of fantasy and would have no more part in the world, as we know it, than if he were actually physically dead. This, of course, is not true, many of the early symptoms bespeak the fact that reality continues to knock at the door of the psychosis. There are panics, suicidal attempts, excitements, and the like. Again, some patients are reclaimed and recover. That means they abandon unreality and become what we call sane.

"Various authors divide the schizophrenic psychosis into stages which to my mind seem artificial and leave out of account the psychopathology. There are only two stages. The first might be called the active stage, it lasts as long as the patient has not completely accepted the psychotic material. In other words, we may presume that he is still aware, however

tients there is mental disease in the ancestry or siblings, but certainly there is no inheritance in the Mendelian sense. A remarkable contribution to the genetics of schizophrenia is contained in the report of Kallman, that if one identical twin develops schizophrenia, the other has only a 15 per cent chance of escaping the psychosis. If the twins are separated early in life, the chances are slightly increased. Industrious workers in neuropathology have attempted to identify a causal pathology in various areas of the central nerve system: cortex, optic thalamus, choroid plexus, the white matter, the globus pallidus, basal ganglia, blood vessel walls, etc. Primary testicular and ovarian atrophy eventuating in terminal brain changes has been postulated. As yet, these and similar reports are not sufficiently convincing. At the June, 1950, meeting of the American Neurological Association, Papez, of Ithaca, demonstrated profound neuropathologic metabolic disturbances in brain cells taken from the living brains of five schizophrenic patients. The incidence of tuberculosis in schizophrenia is high but it must be remembered that the schizophrenic patient is inactive, and the respiratory function is at a low level.

Of considerable importance is the contribution of Nolan Lewis to the pathology of schizophrenia. From the careful analysis of much autopsy material, Lewis uncovered a cardiovascular pattern which commonly appeared in certain types of schizophrenia. The heart is small, and it and the vascular apparatus are inadequate, with a minimum of driving force in the thyroid and the pituitary as contrasted with the dynamic endocrine apparatus and the over-compensating heart and vessels of manic depressive. The caliber of the retinal vessels is a reliable index of the cardiovascular situation and a special technic for measuring the caliber has been devised. It may furnish helpful prognostic criteria concerning what may be expected from insulin therapy.

Psychopathology. As has been indicated, the predominance of interest is focused upon the further delineation of the psychopathologic aspects, both physical and dispositional, of the markedly introverted (schizoid) personality (See p 143). The psychoanalytical school has emphasizes sex, not only in its personal implications, but also in its phylogenetic significance. Likewise, interpretation of certain regressive phenomena has been attempted. For instance, the attitude of generalized flexion, sometimes seen in katatonic stupor, has been thought of as symbolic of an unconscious attempt to return to the fetal security and omnipotence of the womb. In my opinion, it is possible that children who are completely rejected in infancy may sustain such a serious trauma that it assumes

faintly it may be, of the claims of the real and concrete environment. Once he succeeds in completely shutting this out, he lives wholly in fantasy and has entered the second phase of the psychosis. We speak then of his being "demented."

If the schizophrenia is to proceed to its hopeless conclusion, then we see more and more evidences of withdrawal from reality. Some of these cases are extremely interesting clinically. There is the patient in the katatonic stupor, a kind of human opossum, who successfully "plays dead." He shuts out the annoying environment even to the extent of giving no outward sign of pain when needles are stuck into his flesh. There is the interesting dissociation between the content of thought and the emotional or affective expression, so that thoughts which one would expect to be accompanied by sadness and tears, seem to call forth a silly grimace or simper. We speak of the deterioration of the emotions. We mean by this that the emotional expressions of the patient do not meet the requirements of our normal experiences and reactions. And so, in very way, the patient progresses rapidly toward the objective of his psychosis—namely, fantasy. When this is accomplished then all incongruity vanishes and the Empress of the World may live in her dreams which to her are real and at the same time scrub the floor of the asylum in which she is confined.

THE CHARACTERISTICS OF SCHIZOPHRENIA

Schizophrenia has been correctly called the most serious disease menace of modern civilization. At least one fourth or more of the 75,000 new patients admitted to public mental hospitals each year may be classed as schizophrenic reaction types. Even this large number is only a fraction of the total. Many patients are treated in private hospitals and sanatoria, cared for in their homes or make shift in the community, particularly in rural districts. The overwhelming majority of these patients are young, boys and girls merely in the preludes of their lives, never having had the opportunity to taste adult life. Unless an adjustment is accomplished promptly, then these young people are doomed to dream away their lives in a corner of some asylum, unable to experience the joys and the sorrows of emotional life as we know it, and are denied participation in the everyday activities and affairs of human existence.

Etiologic and Structural Pathologic Conceptions. About three-fourths of the schizophrenic reaction types appear between the ages of 15 and 30, they are somewhat more common in the male sex. The incidence is greater in cities than in rural districts, in the foreign born than in native American stock. It is more prevalent in Irish, Polish, Austrian, Hungarian, Russian, Finnish, Greek and Italian immigrants and more common in Negroes than in whites.

Heredity. Some observers report that in 50 per cent of the pa-

There are apt to be vague paranoid ideas, neologistic formation and usually hallucinations which apparently contribute to the fantasy life of the patient and are pleasing to him.

KATATONIA. Marked by phases of stupor and excitement. Katatonic stupor may show resistive phases with negativistic behavior and suggestible phases with cataleptic symptoms. There is impulsive and stereotyped conduct and hallucinosis.

PARANOID. Perhaps this type is particularly marked by the fact that there is retained, for a longer period of time than in the other types, a relatively closer approximation or parallelism between the thought content and the emotional expression. Delusions, with a persecutory and grandiose content, supported by hallucinations are common. Often the symptoms seem to represent projections of latent homosexuality.

These types are not to be regarded as more than loosely arranged clinical constellations. They are not strictly confined and readily overflow, one type into the other. In some fashion, perhaps, abortive and fragmentary, all the important symptoms of schizophrenia may be found in each of the types.

On the basis of the order of frequency of symptoms the following would represent a fairly accurate clinical cross-section of schizophrenia reaction types. It is presented in diagrammatic fashion in order to give an idea of frequency of occurrence.

Hallucinations of all kinds: They occur singly but often may be combined. Auditory hallucinations are far more common than visual, olfactory, gustatory and tactile. Hallucinations are utilized to support delusions and furnish the mechanism for overcompensation, "talking with God," etc.

Suspicious, persecutory ideas and, in general, paranoid trends: "poison in food," "electric shocks," "doping," etc. Usually the delusions are illogical and poorly systematized. The source of persecution may be a single individual, an organization like the Catholic Church or the Masons, or intangible mysterious powers.

Ideas of influence referred to telepathy, hypnosis, strange and powerful rays, machines of all kinds, the telephone, radio, x-rays, hypodermic injections, etc.

psychosomatic proportions, influencing the later development of schizophrenia

Physical Symptoms. There is a largess of symptomatology, non-specific but provocative. Some of the more important clinical findings are these: habitus, "asthenic," "athletic," "dysplastic." The build is apt to be linear with small, narrow head and face and a lengthy but shallow trunk (Kretschmer, Raphael). In females, frequently there is facial and body hair growth with vertical pubic hair and the reverse in the male—scanty beard and a horizontal or female distribution of pubic hair (Gibbs). There is apt to be cardiac and circulatory aplasia (Lewis). Tuberculosis is common. There is a host of vasomotor-sympathetic disturbances: local sweatings, edemas, cyanoses, dilated pupils, absence of psychic pupil responses, increased salivation, low blood pressure and a low basal metabolic rate, particularly in katatonia. The weight is apt to be below par. There may be vertiginous and epileptoid attacks. Langfeldt reports vagotonia in katatonia, sympathicotonia in hebephrenia. There are frequent gastro-intestinal disturbances, often with constipation.

Laboratory Findings. The following have been reported: high sugar curve during stupor (Kasanin), decreased blood coagulation time (Hertz), prolonged hyperglycemia after glucose ingestion and diminution of the inorganic phosphates of the blood plasma (Whitehorn), polyglandular symptoms, infected teeth, "dropped" heart, positive galactose test (Bowman), disordered gastro-intestinal motor function (Henry), a bromide blood, spinal fluid distribution ratio above 3:20 in three fifths of the patients (Malamud and Rothschild), lagging of neurocirculatory "return" after exercise (Trentzsch).

It appears that in a group of schizophrenic patients, there was little, if any, physiologic response to cortisone, perhaps, indicating that in certain schizophrenic types, there is not only psychological but also physiologic immaturity.

Types and Mental Symptoms. A considerable number of "types" of schizophrenia have been described. Many of these represent merely hairsplitting discriminations. For practical clinical purposes, there may be recognized four fairly well defined types: (1) *simple*, (2) *hebephrenia*, (3) *katatonia* and (4) *paranoid*.

SIMPLE SCHIZOPHRENIA is characterized by a rapid deterioration of emotional life as we measure it, a paralysis of interest and the appearance of apathy.

HEBEPHRENIA is distinguished by "silliness," smiling and laughter inappropriate to the expressed ideas and incongruous with them.

phrenic, one marvels at the minimum of accompanying emotional reaction, perhaps a vacuous grin or silly simper. It is like a very tiny mouse emerging from a huge mountain.

Sensorium, Intellectual Resources and Insight If the patient can be stimulated to make the effort, it is usually demonstrated that memory, orientation, etc., are innately not much involved. Insight is lacking or very defective, but sometimes as a response to drastic therapy there are amazingly good displays of insight.

Prognosis in schizophrenia has been construed too pessimistically. This dates back to the day of prognostic nihilism concerning this psychosis. Customarily, when a patient who had a schizophrenic clinical picture recovered, there was a *post hoc* change of diagnosis. Even before the era of scientific care and management the recovery rate was about 15 per cent, and now with the additions and the scientific benefits from drastic therapies the number of "arrested cases and remissions is much higher. Katatonic types probably are the most favorable, but the prognostic verdict, which once was hopelessly adverse for the paranoid forms, is now much more favorable because of the drastic therapies.

In our opinion, the outlook is relatively more favorable in Jews. A stormy, abrupt onset, too, is a good omen. In my opinion, the chances offered by reality for reasonable satisfaction in life with security often weigh the balances in favor of adjustment. It is not too far fetched to assume that sometime in the course of the psychosis, the chances offered by reality are unconsciously weighed against the surcease of the Nirvana of fantasy held out by the psychosis. The answer may decide the issue. The somatic stress and emotional strain of the recent war turned up some interesting examples of schizophrenic syndromes—marked katatonic reactions, sharp, paranoid displays, apathies and other reactions. Testifying to the fact that they appeared in basically sound personalities was their short duration, sometimes only a few days. Sometimes psychiatrists on ships which transported the men back to the continental limits could scarcely believe the descriptions of serious and concrete symptoms written in the combat area a short time before, since no traces of them were to be found. The author observed and reported similar instances in World War I, particularly katatonic types. From time to time, too, they are encountered in civilian psychiatry. Seemingly, in these innately sound personalities there are deep and somewhat vulnerable layers in the psyche which, as it were, are dissected out by environmental threats of much severity and of a

Somatic sensations and delusions bodily orifices sealed, organs transposed or removed, wires connecting organs and tissues, foreign bodies or animals, snakes, etc., in the body cavities

Ideas of reference feelings of being talked about, sneered at, mocked, etc., may be referred to the most casual words, gestures, or happenings

Daydreaming, fantasies, etc., overcompensatory, being God, having a divine mission, a great prophet, a leader, etc

General Behavior Schizophrenia is the psychosis of odd, bizarre, inconstant, impulsive, incongruous behavior, with silliness, mannerisms, stereotypes of speech and manner, rigidities, and grotesque posturing, mental inertia, echopraxia, negativism, katatonia, dilapidated appearance and purposeless, often repetitive and rhythmic motor activity

Stream of Activity and Speech. This is marked by dissociation, often with apparently no connection between thought and speech. These appear as discrete islets without relationship to each other or the mainland of any given concept. There is rambling and incoherence, verbigeration or mutism, neologisms, evasions, blocking, etc. It must be remembered that these phenomena which to the clinical observer are like peaks on the surface of the sea of thought have connections underneath linking together the fantasies of the patient.

Mood Here is to be found the cardinal marking of schizophrenia. Weighed in the balances of the criteria of our emotional life and reactions, we designate the emotional responses of schizophrenic patients as dissociated and contradictory (revealing little or no connection between thought and emotions and being in coordinate or at odds, with each other), ambivalency, in which thinking, feeling and doing seem to be equally weighted so that thinking for or against, feeling for or against, or "to do or not do" are deadlocked and there is an impasse of thought, emotion and action with consequent inactivity, emotional blunting, indifference, unreality feelings, apathy and inadequacy. From time to time, as there is glimpsed the chaotic but rich thought activity of the schizo

SCHIZOPHRENIA MANIC-DEPRESSIVE

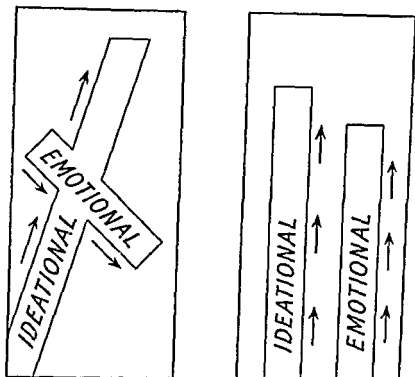


FIG 15 The relative accord between ideation and its emotional expression in manic-depressive and in schizophrenia the "splitting" of thought and emotional expression and the apparent inadequacy of emotional life

5 Stream of thought appears to lack connection with the environment and indeed, seems to consist of independent currents without relationship with each other.

6 Many delusions, usually illogical and unsystematized with paranoid and somatic content Ideas of reference and of influence common Hallucinations extremely frequent

5 Closely related to the environment and to inner associations and fed by stimuli from these sources, in mania, with distractibility and flight of ideas

In depression, the stream of thought is sluggish with retardation and poverty of ideas

6 In the manic phase, the delusions are usually expansive and transient

In the depressive phase, the delusions are tinged with self-accusation and may be somatic

particular kind. If this is true, then these short-lived schizophrenias are truly reactive.

DIFFERENTIAL DIAGNOSIS OF SCHIZOPHRENIA AND MANIC-DEPRESSIVE PSYCHOSIS

In spite of the fact that schizophrenia and manic-depressive are divergent and alien to each other in psychopathology, there are clinical situations in which the differential diagnosis is difficult. There are instances of schizophrenia in which there is a prominent segment of manic-depressive symptoms. Conversely, there are manic-depressive psychoses with many well-defined schizophrenic symptoms. Some of these puzzling situations are explainable on the basis of somewhat anomalous prepsychotic personalities such as extroverted personalities which eventuate in schizophrenic reactions and introversion preceding manic-depressive psychosis.

SCHIZOPHRENIA

1. More likely to be a preponderance of asocial, introverted and schizoid personality markings.

2. The general behavior is odd, inexplicable, incongruous and, seemingly, devoid of emotional stimulus.

3. Objectively, the affective currents and emotional reactions appear to be indefinite, weak, inadequate and disproportionate to thought and, often, not only inexpressive of thought, but contradictory to it, i.e., splitting of the mind which is the literal meaning of the word schizophrenia.

4. Katatonic symptoms quite common.

MANIC-DEPRESSIVE PSYCHOSES

1. In the personality usually a preponderance of social, extroverted and syntonetic traits.

2. The general behavior in either phase of the psychosis, excitement or depression, is in keeping with the psychotic role being enacted by the patient.

3. Usually, the objective evidences of emotional life are well defined. In mania, frank elation and rapidly shifting emotional trends; in depression, a well-marked melancholy, often with self-blame. In both phases of the psychosis the emotional behavior is apt to be expressive of the thought content and in keeping with it.

4. Katatonic symptoms less common.

tasy and advancing the satisfactions of a return to real, everyday living. She will see that the patient's body is looked after and protected. The patient must be kept clean and taught a habit routine of oral and general bodily hygiene and bladder and bowel function. If the psychosis should become chronic, such inculcated habits make the greatest difference. The tendency to apathy can be combated by calisthenics, walks, outdoor and indoor games, amateur theatricals, the theater, motion pictures, dancing, etc.

Sometimes patients at the behest of the "voices," or as a part of the delusional conceptions, injure others or horribly mutilate themselves. An efficient nurse may forestall these happenings.

The nurse must be carefully watchful of the patient's nutrition and keep the physician informed so that, if needed, tube feeding may be instituted. So, too, should the nurse observe the states of katatonic and other excitement so that the physician may work out a program of hydrotherapy, the prolonged bath, packs and other measures.

Occupational Therapy. If used sensibly and skillfully, occupational therapy is extremely useful in assisting the patient back to reality. The product is relatively unimportant—very important is the fact that the rug, perhaps poorly woven, or the somewhat knobby clay modeling is, after all, something concrete that the patient has made, a symbol of actual flesh and blood life, a contrast with the still intangible and unsubstantial fantasy and perhaps a temptation away from it.

Social Service. Perhaps especially because the schizophrenic is less likely than the manic depressive to clash with the environment, it is necessary after discharge from the hospital to follow the situation closely by social service or equivalent investigations. It is important to see that the gain made in the hospital is not dissipated for lack of stimulus for occupational and social activity. Otherwise, the patient may relapse into a quiet, dreamy, inactive mode of life.

Medical Care and Treatment. Aside from the schizophrenia each patient is a problem in internal medicine. Sometimes careful examinations will discover a serious condition calling for medical or surgical intervention. There may be foci of infection which should be eradicated. A variety of signs and symptoms may group themselves definitely enough so that sound endocrine therapy is indicated.

The general medical needs of the patient are so usual that this phase of medical care must be almost routine. It involves close attention to the nutrition, to the possibility of vitamin deprivations, and to skin and gastro-intestinal functions. The skin is apt to be

Paranoid delusions and hallucinations occur in manic-depressive but are far less usual than in schizophrenia

7 The excitements of schizophrenia seem to be purposeless and largely devoid of environmental stimuli and attachments and emotional coloring

7 The excitements of the manic phase of manic depressive psychoses are purposeful, reactive to environmental stimuli and in close contact with them and vividly colored emotionally

8 Sensorium usually clear, but patient often gives the impression of being disoriented and confused

8 Usually, the clearness is objectively and readily demonstrated. In hypermania and in very deep depression, often with stupor, consciousness is beclouded, and orientation is uncertain

9 Insight absent or very defective

9 Insight fairly good and sometimes remarkably complete

10 Remission less frequent and more apt to be partial

10 Remissions frequent and generally complete

TREATMENT OF SCHIZOPHRENIA

General Management Because of the medical and other needs of the patients and the disruptive effect of the illness personally, socially and economically upon the family and the community, the majority of patients must be treated in hospitals and sanatoria. With greater skill in the recognition of early and incipient schizophrenia and more effective psychotherapy, the number of patients who may be treated successfully on an office basis is increasing rapidly. Sometimes, and during certain phases of schizophrenia, farms and ranches may be utilized satisfactorily. There are three constantly needed agenda of treatment: good nursing, occupational therapy and social service.

The nurse is the personal representative of the psychiatrist. She must have enough understanding of schizophrenia so that constantly she is planning ways and means of checking the inroads of fan-

closely woven and firmly tied. There is idealistic identification. Children unconsciously but constantly supplement their own weaknesses by identifying themselves in their parents. The greatest English poet wrote truly "For children, the voice of the parents is the voice of God." This emotional bond is notably strong in introverted children and leads to indiscriminate imitation of the behavior of parents by their children. The goal of mental safety in maturity will not be attained unless the process of emotional emancipation is begun during childhood.* If this is not accomplished, the child is very likely to be doomed to a lifetime of insecurity and slavish mimicking of a long procession of those who in their contacts with the child are the adult, emotional surrogates for the parents. True, the child-parent link must not be broken too abruptly, but there must be a continuous encouragement of freedom of individual thought and action.

Introverted children are usually avid readers and it is wise to engage their reading interests diplomatically in literature that is not too vividly fantastic. Religion supplies an important need if it is beautiful and inspiring (and not grimly fear-producing), social, practical and contributes to security.

The schooling of these children should be carefully scanned and means found to check the tendency to study abstruse and obscure subjects. Rather should socializing subjects be emphasized, that youth may keep close to facts and maintain friendly personal contacts. Primacy in competition of intellects is a goal to be disparaged. The choice and any change of occupation should be given consideration by those interested in order to prevent the development of illness and any inclination to choose a vocation that merely promises compensation for ill-recognized inferiority feelings should be skillfully handled. The vocation selected should be certainly within the capacity of the individual and of a type to maintain his social life on as broad a scale as may be within his power (Hamilton) †

Psychotherapy. Elaborate and formal psychotherapeutic techniques are usually not practical in schizophrenia. There is a large field of usefulness in the application of simple measures—persuasion and suggestion, particularly indirect suggestion, which skillfully puts forth the claims of reality. The objective of psychotherapy, the relinquishing of fantasy and the re-establishment of contact with reality, is obvious. Its accomplishment is difficult. The so-called "affective reintegration" of the analytical school has the same ob-

* It is suggested that the student read *Their Mothers' Sons*, by the author, Lippincott.

† Strecker and Ebaugh. *Clinical Psychiatry*, Philadelphia, Blakiston.

sticky and greasy and easily breaks out into eruptions. There is very likely to be constipation which needs more than mere laxative medication. Often the patient is the better for yeast therapy, diet modifications which combat chronic constipation, etc.

There are numerous emergency situations, arising in the course of schizophrenia, which need prompt medical attention: the patient may inflict lacerations upon himself, may insert various objects into the body orifices—mouth, nose, ears, penis, vagina, or rectum.

There may be serious life or death emergencies. One patient interpreting literally the biblical injunction attempted to gouge out his eyes and sever his right hand. Another patient succeeded in amputating his penis with a carving knife, but died from hemorrhage.

Preventive Therapy. The field of prophylaxis and prevention is very promising. The effort must be made in childhood and, to a considerable degree, in the home. The objective is to "exteriorize" or socialize the sensitive, introverted child and give him a sense of security within himself and in his environmental relations.

In the home there should be a reasonable amount of happiness and harmony. Parental training should not accent either extreme of the scale—harsh nonexplanatory discipline or spoiling. A not uncommon harmful situation is the "playing of favorites," i.e., centering attention on a brother or a sister of the introverted child. It is destructive to attempt to stimulate the child by urging or shaming him into emulating the social assets of his brothers and sisters. The net result is to plunge the child deeper into the morass of his inferiority feelings. Some children become alarmingly introverted and enmeshed in fantasy because they are too much alone. Children need plenty of companionship with other youngsters of both sexes, quiet and active companionship, indoor and outdoor games and athletics. The home should be the natural place for the child to bring his playmates and there should be nothing in the home (dissension, alcoholism, etc.) which would belittle the child before other children. Introverted children, more than other children, need skillfully imparted information about sex. Ignorance of the concrete facts of sex is a rock against which the frail craft of mental adolescence is so often wrecked. Therefore, a well planned effort should be made to discourage sexual rumination and fantasy by giving these children reliable sexual information. Moralizing sermons do little or no good and frightening admonitions are harmful. Again, the most promising insurance against schizophrenia is the home in which the child is wanted, loved, protected and given the opportunity to develop emotional maturity.

The emotional tie between children and their parents is indeed

the more concrete paranoid schizophrenia, that one finds clearly defined paranoid syndromes with somewhat logically constructed delusional premises involving intelligence and with corresponding emotional responses that are reasonably strong. From this level on through the "paranoid conditions" and "paranoia" the markings of the paranoid symptoms are very distinct. In the paranoid conditions, the delusions of persecution are well constructed and systematized and are stated by the patient with considerable intelligence, although there are some flaws in the delusional premises. All in all, the emotional accompaniments are rather strong and adequate—fear, resentment, anger, threatened violence. Again, there are a few weak places with inadequacy of the emotional responses to the delusional conceptions. Naturally, the consciousness is clear, and the patient is alert and oriented. Hallucinations also constitute a criterion of the severity of the paranoid symptoms. In the toxic reactions there are many hallucinations, in paranoid schizophrenia, hallucinations are common. In the paranoid conditions they are much less frequent, and in true paranoia they *never occur*. If one asked a paranoiac his opinion of the hearing of "voices" when alone, probably he would reply "That would be insanity." Finally, within the range of well defined paranoid reactions, mental deterioration is a measuring rod of the strength of the reaction. In paranoid schizophrenia, the loss of emotional integrity and adequacy is rapid. In a few years, at most, there is left only a hollow shell of the former delusional structure. In paranoid conditions, appropriate emotional reactions and the systematization of the delusions survive much longer, sometimes even a decade. Eventually, however, discrepancies and weak areas appear in the logic of the delusions and in the consistency of the emotional responses. True paranoia never weakens in the logical structure of its delusions or in the strength of the emotions. (See Figs 16 and 17.)

The limits of true paranoia have been defined by exclusion. The definition proposed by Kraepelin is still valid: "A fixed type of disease, due exclusively to internal causes and characterized by persistent systematized delusions, the preservation of clear and orderly thinking and acting, and by the absence of hallucinations."

Paranoia is very rare. In an analysis of 5,000 successive admissions only three authentic cases could be found. It is at least twice as common in men as in women. The pronounced mental symptoms usually appear in middle life, but it is a long time in the making, and a careful study of the histories reveals significant personality deviations as early as the second and the third decades. The evolution of the delusional system is an amazingly gradual and pains

jective, "The affect (emotions) can be mobilized and set to expression. If the mobilization takes place after reality and phantasy have been differentiated by the patient, the process of affective reintegration may go to its completion."

The so called Rosen technic has attracted considerable attention. Briefly, it explores the symptoms of the psychosis, particularly those that are regressive. They indicate certain areas of childhood in which emotional growth was arrested. The psychotherapist, actively participating in the role of the loving, protecting parent, attempts to produce rapid emotional growth in the patient. It is not unusual for the patient to go through a period of bottle nursing.

Pharmacologic and Drastic Therapies The discussion of the drastic therapies, insulin, electroshock and prefrontal leukotomy will be found in Chapter 11.

PARANOID SYMPTOMS, PARANOID CONDITIONS AND PARANOIA

Paranoid implies more than a reasonable degree of caution and sophistication in dealing with other human beings. Literally, "paranoid" means resembling paranoia. It indicates suspicion and persecutory delusional formation. Paranoid markings may be encountered in any and all psychoses. The paranoid stream flows through the territory of every form of mental disease and, perhaps, a satisfactory clinical understanding may be acquired by regarding the clinical stream of the paranoid as composed of paranoid symptoms, elements of consciousness and intelligence, and the emotional coloring. Viewed in this way, the paranoid stream, as it traverses the territory of certain psychoses, is thin and insignificant. In other psychotic areas, it is wide, prominent clinically and quite significant.

In the toxic psychoses, as in delirium, there may be many paranoid symptoms but they are transient, the consciousness is disrupted, the patient is disoriented, the intelligence is in abeyance, the emotional reactions are inconstant and without depth. Much the same situation exists in the organic psychoses, although the paranoid symptoms are apt to be slightly more constant with the consciousness, orientation and intelligence slightly less disturbed, and the emotional accompaniments a bit less fleeting.

In manic depressive territory, there are, here and there, fairly well defined paranoid trends with more retention of consciousness and intelligence and stronger and more stable supporting emotional accompaniments.

It is, however, not until one surveys schizophrenia, and chiefly

The prognosis is nil. Treatment, at best, can hope only to protect the patient from the consequences of his acts and protect society

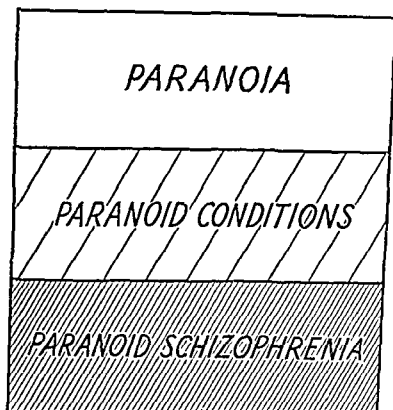


FIG. 17. Relative degrees of deterioration.

from violence. This can be accomplished by commitment, which must be carried out when the paranoiac is dangerous, even though it is apt to be followed by endless litigation.

THE PSYCHONEUROSES

In the introduction to the consideration of the functional psychoses and psychoneuroses (Chap. 8) there was given some explanation of the elementary concepts of psychopathology and the mechanisms which are used to express it, i.e., the conversion of unsolved emotional conflicts into functional symptoms. At this point this discussion should be reviewed.

It is impossible to estimate the statistical incidence of the psychoneuroses and functional illness. Only a few of these patients are admitted to public mental hospitals from which statistics are accumulated. However, a perspective of the enormous magnitude of the

taking process, requiring many years to reach full flowering. Contrastingly, the delusional structure of the paranoid conditions is completed in a much shorter time. The careful interpretation of clinical material makes it exceedingly likely that among the dynamic forces underlying the development of many paranoid conditions and paranoia, there is chiefly a latent homosexuality, rigidly excluded from consciousness. Feelings of guilt and inferiority result

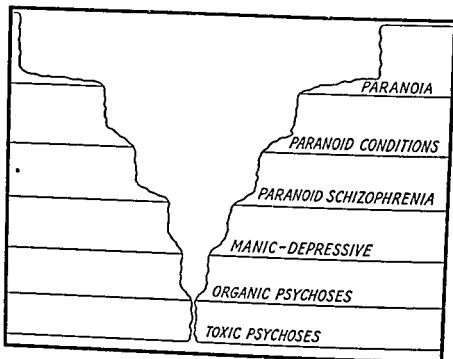


FIG 16 Amount, logic and emotional expression of paranoid reactions in various psychoses

and there is delusional projection upon others and upon the environment

In a few patients with severe paranoid conditions with elaborate systematized delusions, we have been able to obtain a very considerable degree of social improvement. The treatment consisted largely in emphasizing the occupational and social penalties which would be incurred, if the behavior prompted by the delusional thinking was not inhibited. It is doubtful if the patients, who had high grade intellectual endowments, developed any real insight, but they did succeed in putting on good "fronts" in their occupations and social contacts and, all in all, carried on very well.

Paranoics may become leaders of religious and other movements and may be dangerously antisocial. A large percentage of assassins of rulers and other prominent personages have been paranoics.

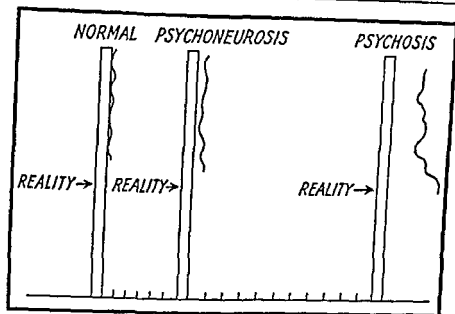


FIG 18 Relatively greater departure from the "normal" involved in a psychosis as contrasted with a psychoneurosis and the much closer contact with reality retained by the psychoneurotic as compared with the psychotic patient

since it is the most important fact in preventive psychiatry), the seeds of the vast majority of psychoneuroses are in emotional immaturity, which is the inevitable outcome of defective early child mother parental family relationships

The organic physiologic, etiologic hypothesis of the psychoneuroses is not without its exponents Myerson thinks of "emotion as largely a thalamic, vasovisceral, motor reverberation of an event All the past experiences of the individual have been organic, and their effects, whether transitory or permanent, were organic" Neuro physiologic investigations, furnishing comprehensive data concerning the anatomic connections of emotional reactions are proceeding apace

One would hesitate to believe that the sole explanation of the psychoneurosis ever will be found in restricted terms of structure, yet it never must be forgotten that there is a very considerable segment of organic morbidity in the psychoneuroses The following morbid conditions are constantly repeated in our statistics endo crine dysfunctions, tuberculosis, lues, extensive apical abscesses, organic heart disease, often with beginning decompensation, post influenzal states, arteriosclerosis, anemia, combined heart and kidney diseases, osteo arthritis, sinusitis, infected tonsils, extreme visceroptosis, chronic Neisserian infection, nephritis, chronic ap

medical problem may be gained from the testimony of general practitioners, internists and workers in every field of medicine. As has been mentioned, the larger segment of practice deals with functional rather than with organic illness. Induction and service experience in World War II would place the number of psychoneurotics at more than 5,000,000 in the general population. The economic and social loss due to impaired efficiency is extremely serious.

The psychoneuroses are essentially different from the psychoses. In general, the psychoses involve marked disruptions of personality and total abandonments of reality. In the psychoneurotic, there is much less personality upheaval and disorganization, and the hold on the environmental realities is tenacious. The emotional life of the psychotic patient is markedly disturbed, often seriously diminished and sometimes altogether abolished. The emotions of the psychoneurotic patient remain relatively flexible. Psychoneuroses, to be sure, are maladaptations, but the failure to adapt is partial and is much nearer to a hypothetical normal than it is to the psychoses. In psychotic patients, in general, insight is incomplete. The psychoneurotic, in very large measure, has the capacity to stand off and look at himself objectively, evaluate his symptoms and accept and act on psychotherapeutic explanations (Fig 18).

ETIOLOGIC CONSIDERATIONS

It is impossible to disregard the harmful effect of some aspects of the civilization and the culture in which we live. Our civilization is too extroverted, too competitive, but still too standardized, patterned, routine and monotonous. There are involved economic and social complications, often highly artificial, which tend to defer over long the satisfaction and the completion of instinctive drives such as sex and its objectives of homemaking and children.

Many of the handicaps, the artificial products of our civilization and the inevitable deferments entailed, operate to belittle the individual and to increase his inferiority reactions. In a broad, philosophical sense, the psychoneurotics seek to attract attention, unconsciously, to gain "a place in the sun" by a display of functional symptoms. Thus, when the normal desire to be of some importance in the social scheme is blocked, there is an "illegitimate" (psychopathologic) attempt to seize a small measure of power. Add to this the fact that we are all dwarfed and deindividualized psychologically by living in the shadow of the atom bomb and even more lethal weapons.

As I have stated often in this book (but I do not think too often,

confirmed and strengthened the opinions we had held concerning the occurrence of conversion hysteria in civil life. Briefly, they may be stated as follows

1 Unresolved emotional conflicts become converted into clear cut symptoms, which constitute clinical conversion hysteria and are readily discoverable upon objective examination

2 Hysteria represents an escape from a situation no longer tolerable to the personality of the individual. The unconscious mechanism employed is productive of symptoms constituting objective disabilities which, for the time being, render impossible a return to the unbearable situation

3 The hysterical symptoms are protective blindness and amnesia blotting out the gruesome sights witnessed on the battlefield and the memory of them, deafness shutting out the cries and the groans of the wounded, amnesias erasing the remembrance of seeing a beloved one in the arms of another, etc

4 Various factors, physical such as concussion, fatigue, or deprivation, trivial illness or an emotionally disturbing situation may act in the role of precipitating factors

5 After the symptoms appear, factors of secondary gain often begin to operate

The following simple diagram may be helpful in visualizing the mechanism of conversion hysteria

"A" and "B" represent the two elements of an emotional conflict which occurs in the "not conscious" mind at "X". One element of the conflict, "A," is largely conscious, a group of ideas which may be called 'soldierly ideals' consisting of the wish to be a good soldier, to merit praise and distinction, to bring honor upon the company, the regiment, the division, to stand well in the eyes of his 'buddies' and officers and to make his contribution to the cause and the ideals of his country. These conceptions are accompanied and supported by appropriate emotional reactions—patriotic fervor, courage, determination, etc

The second element of the conflict is largely unconscious and consists of the strong demands of the instinct of self preservation. It is at once obvious that the requirements of being a good soldier and the instinctive demands of self preservation are scarcely reconcilable. One cannot be brave in battle without putting one's life in jeopardy. So the conflict develops deep in the unconscious as represented in the diagram by "X".

Such an unconscious conflict was present in every normal human being who was in the zone of danger. For many, it never eventuated in "shell shock", for others, it came to the pathologic compromise

pendicitis suppurative otitis media, prostatitis, gastric and duodenal ulcer, early gastric carcinoma lead poisoning floating kidney, etc. It is not our conclusion that these and other conditions are causal, certainly they are not directly so. It is more likely that they play precipitating roles perhaps by lowering resistance but, chiefly, by providing a psychological opportunity of unconsciously adding functional symptoms to the clinical picture, without insult to the personality. In other words the individual being organically sick, which is still erroneously and too generally regarded as the only legitimate kind of illness, there is provided the opportunity to secure psychopathologic compromises of long endured underlying emotional conflicts. Functional symptoms now may develop and present themselves clinically without loss of face. This is one of the reasons why in everyday practice situations presenting organic disease with an overlayer of functional symptoms are so very common.

CONVERSION Hysteria

Many of the etiologic theories which have been advanced while they by no means solve the problem of conversion hysteria, do contain provocative ideas. Charcot subscribed to the theory of a degenerative state largely due to inheritance. Bernheim and Babinski strongly emphasized the importance of suggestion. Rivers and MacCurdy linked the naivete of the mechanism of conversion hysteria with deficits in the education of the patient. Binet postulated a double consciousness separated by amnesic periods. The essence of Janet's conception is likewise a doubling of consciousness. Freud saw in the hysterical symptom a wish fulfillment of an unconscious fancy representing part of the sexual life of the patient and corresponding to sexual gratification real in infancy but since repressed. The hysterical symptom is the pathologic compromise of the emotional conflict between the attempt to realize and the striving to repress partial sexual impulses. Dejerine described an emotional constitution marked by functional over reaction to emotional stimuli in an organ or a group of organs, the mental representation of the function being dissociated from the field of consciousness. This theory might be explanatory of the striking emotional nonchalance with which the hysterical patient is apt to regard a serious deficit like complete paralysis or deafness.

The author was fortunate enough to be included among the psychiatrists who in World War I, on the battlefields of France, saw large numbers of so called "shell shocked" soldiers, while the hysterical symptoms were still "warm", that is, soon after they had developed clinical form. Our experiences and the analysis of them

SYMPTOMS OF CONVERSION HYSTERIA

The symptoms of conversion hysteria are apt to appear abruptly and to be total symptoms, i.e., blindness, deafness, paralyses, etc., instead of, as in neurasthenia and anxiety reactions, "spots before the eyes," "ear noises", motor weakness is more usual than palsy. Hysteria has been called a protean disease. It is scarcely that. It is true that it does mimic the symptoms of various organic diseases, but the imitation is usually clumsy and exaggerated.

Sensory Symptoms. All varieties of anesthetics, hypoesthesias, hyperesthesias and paresthesias occur, including the traditional "glove" and "stocking" anesthetics. Deprivations and disorders of the special senses are common. In distribution, the symptoms do not correspond to those due to pathology of the central or the peripheral nerve system.

Motor Symptoms. These occur in all varieties and degrees. There may be paralyses, spastic and flaccid, abnormal movements, tics and muscular spasms, tremors, pathologic gestures and gaits, often grotesque, convulsions, astasia abasia, etc. There are functional disturbances such as aphonia. Again, the symptoms are not explainable on an organic basis.

A great variety of vasomotor symptoms have been described, including a few well authenticated instances of bleb formation.

Somatic Symptoms. Any and every variety of somatic symptom may occur. Nausea and vomiting are common. Anorexia nervosa may reduce the patient to such an extremity that he falls easy victim to an intercurrent disease.

Mental Symptoms. Among the mental symptoms are included amnesia,* fugue (a period of time for which the patient is amnesic, although his behavior may have been such that one would have judged that he was quite conscious of his surroundings), somnambulism, hallucinations, probably due to a failure completely to submerge buried complexes, double and multiple personalities, etc.

NEURASTHENIA AND ANXIETY REACTIONS

While there are many divergencies, yet, basically, neurasthenia and the anxiety neuroses may be considered together. Many explanations for neurasthenia have been given: overwork, auto-intoxication, autosuggestion, etc. Dejerine feels that the course of events is

* In organic amnesia due to brain pathology, the events of the amnesic period cannot be reconstructed as they can in hysteria. In addition there are the signs of gross brain disease and the emotional setting of the hysterical amnesia is absent.

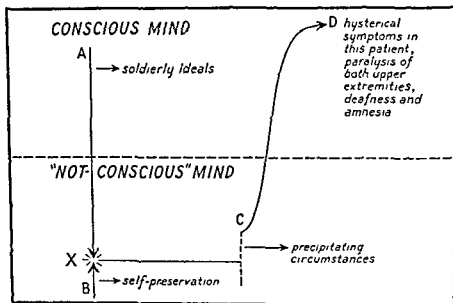


FIG. 19. The conflict leading to hysterical symptoms in a soldier.

of conversion hysteria. The symptoms often appeared after "concussion," simply being bowled over by the explosion of a shell and being mildly dazed. So it was in the case of the soldier represented by the diagram. As consciousness returned there were obvious the symptoms of paralysis of both upper extremities, deafness and amnesia. They represented the end products of the conversion of the emotional conflict.

In this case, it was verified that the soldier obeyed the command to charge, probably killed a German with a bayonet thrust, heard the cries and the groans of the wounded as he crouched in a "fox-hole" and, then, in going forward again, probably was bowled over by shell concussion and was picked up by the stretcher-bearers and brought to the triage. He remembered the order to charge but nothing else until he was interviewed at the triage.

In civil life there are innumerable situations leading to emotional conflicts, often re-animating the emotional traumata of repressed childhood experiences, which may eventuate in conversion hysteria. Included are: unpleasant home situations, chronic illness, operations, accidents without serious injury, defects producing inferiority reactions, serious illness in the family and deprivations by death, marital problems and maladjustments, many varieties of sexual problems, masturbation, illicit relationships, obstacles in the love life, etc.

fright is over, the reflexes remain. Hyperthyroidism, a condition in which the heart persistently beats very rapidly, the eyes become very prominent, the hands become shaky, and the patient feels continuously nervous and easily startled, may arise in this way. These patients have the appearance of frozen fright, or graven fear, i.e., they have always the facial expression of fear, although they may not feel afraid. I know of two cases in which such states originated, one from the terrifying experience of a shipwreck and rescue at sea, and the other from a horrible automobile accident.

We had a patient who had been with her husband, a naval officer, stationed at Haiti, during the uprising of the natives. One day, while he was in the interior of the island, she walked into the living room and found a poisonous reptile coiled under the table. Later in the day, she opened a closet and a tarantula started out after her. That same evening there was a shooting affray in front of the house. Immediately, she stiffened into a state of frozen fear. She was brought back to the United States and for six months was mute, did not eat, had to be fed through a tube, and, when placed upon her feet, would collapse to the floor as though her knees were made of water. In a verbal communication to the author, the late Walter Cannon discussed the "fear" deaths of primitive people who had been voodooed and felt that the immediate cause of death was the massing of blood in the large brain vessels.

It is true that most of the shocks we encounter in the present stage of civilization are not as physical, acute, or dramatic as the fright of the cat, but the emotions engendered in us are, if anything, more devastating. Human beings stand a single mental shock relatively well, even if it is severe, as, for instance, the drowning of an only son. It is the series of shocks or a long continued single emotional strain like worry or apprehension that finally breaks us. Such tiring and destructive emotional stress may be due to a prolonged struggle with difficulties and problems which we are not meeting in a straight forward manner. Long drawn out fear, anger, shame, resentment, anxiety or other intense emotion may produce an increased heart rate, and the alterations in the activity of the gastrointestinal functions, just as fear did in the instance of the cat. If these reflexes become established they tend to keep going even after the original situation has disappeared. They are like the toy that must go until the spring unwinds. Human beings, however, may be wound up as fast as they are unwound—that is, the situation remains. Thus, anxiety, states of intense fear, worry, agitation, and loss of control may dominate almost every waking hour.

Is it conceivable that such situations can arise in the midst of the culture, refinement, material ease, and protection of modern life? Not only conceivable but they are exceedingly common! Here are a few taken at random from our practice. Think of the fear of the woman who has reason to believe that her husband is no longer in love with her and may at any time leave her for another woman and thus, at an age when she is no longer able to shift for herself. Or the young girl who is carrying

as follows symptoms occasioned by emotional disturbances, conscious consideration of the symptoms, erroneous deductions concerning the source and the nature of the symptoms

The neurasthenia of Freud implicates excessive masturbation in adult life and incompleteness of sexual satisfaction. He feels that anxiety neuroses are more frequent in women and are due to coitus interruptus or ejaculatio precox, in men, to sexual abstinence, frustrated sexual excitement, coitus interruptus, and senile conditions.

In our work with neurasthenia and anxiety reactions, we have formulated a simple conception which has been helpful to us. The fatigue which is such a constant symptom, of course, is not the fatigue of muscular tiring but the wear and tear from emotional cross purposes. There is a long period of vain attempts to solve a problem, the nature and the origin of which is not understood by the patient. From time to time symptoms appear and disappear—the individual is still fighting. Then comes defeat. Now the potential neurasthenic or anxiety neurotic begins to be introspective and speculative concerning somatic sensations, often normal sensations, like the peristaltic movements of the intestines.

What happens? If a laboratory animal is frightened or angered certain physiologic disturbances are produced. In the cat, for instance, one may see such gross phenomena as the arching of the back, hair standing on end, dilated pupils, and spitting. Much more is going on inside the body. The cardiovascular apparatus is energizing into much greater activity, and the blood pressure is raised. This increases the metabolism of the muscles. The increased pressure not only supplies blood to the muscles and organs more effectively, but also sends a larger supply to the brain where quick decisions must be made. Certain of the endocrine glands, perhaps particularly the adrenals, participate in the production of increased blood activity and pressure, and even shorten the clotting time of the blood. The liver discharges more sugar into the blood, so that the muscles have sufficient fuel for the mobilization of their energy. Respiration is more rapid. Stomach and intestinal movements are at a minimum. In a few words the net result is an adequate physical preparation for fight or flight with a mobilization of those parts from which there will be a strong demand for work, such as the muscles, and a cessation of functional activity in those viscera such as the intestines, the activity of which would only hinder and impede fight or flight.

It may be objected that, after all, human beings are not cats and there are no fierce dogs in our world. But the objection is not valid. Human beings are affected by pain, fear, anger, and other emotions just as the cat is. Sometimes we are subjected to the same physical frights, and the same reflexes described in the cat are initiated. Indeed, the advantage is with the cat, since either consciously or unconsciously, humans remember their experiences. Now and then instead of quieting down after the

One day his wife told him she was again pregnant, and within three days he developed a group of symptoms which were very severe and, at first, were mistakenly diagnosed as Graves' disease (Y).

Symptoms of Neurasthenia. Symptoms of neurasthenia are general and particular. The general symptoms are fatigue (often produced by very slight effort but selective, in that considerable exertion may be made by the patient in describing the symptoms and other things in which he is deeply interested and concerned without producing undue fatigue); there is impairment of concentration; self-consciousness; inferiority feelings; irritability, anxiety, depression, phobias, etc.

The subjective sensations and physical symptoms are legion. These are referred to every system, organ and part of the body. It is a fallacy to believe that neurasthenic symptoms are restrictedly subjective like "pain over the heart" or "swelling of the scalp." Often they are objectively demonstrable like pallor, sweating, vomiting and tachycardia.

Anxiety Neuroses. For practical clinical purposes, anxiety neuroses embrace Freud's "anxiety hysteria" and much of the material formerly included under "psychasthenia."

In the anxiety neuroses, there are repeated many of the symptoms of neurasthenia. However, the "anxiety crises" are distinctive. Overwhelming anxiety and fear are dominant and are expressed strikingly. There are marked cardiac and vasomotor displays, with an overacting heart often irregular and palpitating. There may be nausea, vomiting and diarrhea, sweating, feelings of suffocation, vertigo, violent trembling, and difficulty in walking.

Anxiety neurosis, too, is one of the main clinical territories of the special fears or phobias, with a hopeless multiplication of names derived from Greek roots. More important is it to remember that these phobias represent a substitution for deeply hidden psychopathologic material. The *raison d'être* of the phobia is to keep out of consciousness submerged complexes which the personality of the patient cannot face.

OBSESSIVE-COMPULSIVE REACTIONS

For Janet, the obsessive-compulsive neuroses represent "lowering of psychological tension." Meyer gives this useful descriptive definition: "A lowering of general interest and tendency to rumination of what is accessible to the patient in his memory, but is not squarely

on secretly a questionable love affair Or the worry of parents at the degradation of a son or daughter Or the state of mind of the wife who is carrying on an illicit love relationship Or the haunting fear of poverty Or think of the man getting on in years and with a large family to support, who lives in fear of being displaced in his job by a newcomer in the business organization These, and many similar situations, are anxiety producing In this type of reaction the individual is still fighting and aggressive His symptoms are part of his endeavor to overcome the difficulty If the physiologic state, or the reflexes and sensations continue long after the inciting conditions exist, the patient loses his aggressive attitude, and finds his world consisting mainly of these residual sensations *

A simple diagram may further clarify the discussion

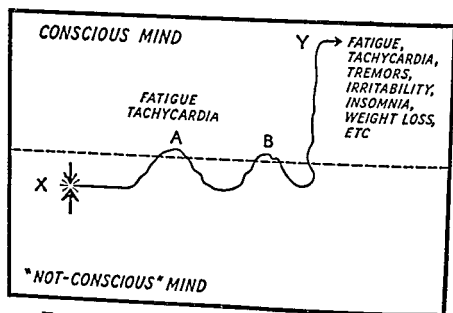


FIG 20 The production of a neurasthenic state

The conflict is at "X," not very deep in the "not conscious" mind It concerns a bank teller who was married and had a large family His salary was relatively small He was having a desperate time trying to meet expenses and had gone into debt Although he never had clearly admitted it in consciousness, it became very clear early in treatment that there had been many ruminations concerning the possibility of stealing money from the bank He began to complain of feeling exhausted From time to time (as at "A" and "B") he felt so "tired" that he could "scarcely walk" At these times he was distressed and frightened by the "loud and fast" beating of his heart

* Strecker, E. A., and Appel, K. E. *Discovering Ourselves* New York, Macmillan

One day his wife told him she was again pregnant, and within three days he developed a group of symptoms which were very severe and, at first, were mistakenly diagnosed as Graves' disease (Y).

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OBSESSIVE COMPULSIVE REACTIONS

For Janet, the obsessive compulsive neuroses represent "lowering of psychological tension." Meyer gives this useful descriptive definition: "A lowering of general interest and tendency to rumination of what is accessible to the patient in his memory, but is not squarely

met, and where the normal reaction is replaced by rumination, substitution acts and panics"

This diagram may help explain the mechanism of displacement, substitution and symbolism which we feel is operative in obsessive-compulsive reactions.

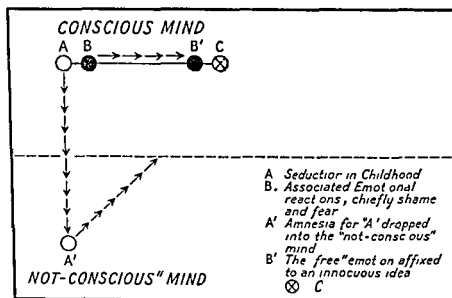


FIG 21 Displacement, substitution and symbolism

The patient was in middle life when a strong obsession compulsive reaction appeared concerning the number "13." It made the patient's life a burden by compelling him to hop over each thirteenth step, remain in bed on the thirteenth day of each month, etc (See p 80)

With much difficulty, the following significant material which had been repressed, was recaptured from memory. In childhood, the patient was sexually seduced by an ignorant and very superstitious serving maid. He remembered that he had suffered intensely from shame and fear of discovery. This was the union between the experience and the emotional reaction to it (A-B O-●). Soon after the boy was sent to a boarding school, in which there was a sternly religious atmosphere, particularly severe about sex, with preaching of "fire and brimstone" punishment for sexual offenses. Then the memory of the seduction was repressed (displaced) from consciousness into the "not conscious" mind (A to A'), "A" having been displaced from its coupling with "B," its emotional component, "B" is left as "free" emotion in consciousness and becomes united with an idea, "C," which in itself is innocuous (substitution), the

number "13" (B'-C • - ⊕) However, the repression of the memory of the original happening, the sexual seduction, is insecure and it (A') is constantly trying to push back into conscious Therefore, the patient develops obsessional thoughts and compulsive behavior about "13" (the symbol) in a frantic subconscious effort to keep the former psychologically painful experience submerged in the "not conscious" mind

The symptoms of obsessive compulsive reactions include obsessive thinking, compulsive behavior, feelings of insufficiency, tension, anxiety and, occasionally, marked depression and anxiety The obsessive thinking may remain ruminative and not eventuate in compulsive behavior Obsessive behavior may be simple, such as touching or not touching various articles, or it may be extremely elaborate and ritualistic I knew a patient who customarily spent three hours at night arranging the clothing to be worn the next morning

PROGNOSIS IN THE PSYCHONEUROSES

It is difficult to evaluate prognosis accurately For one thing, reliable statistics are not available For another, in many patients, functional symptoms are mistakenly diagnosed as organic and vice versa In any event, it may be stated that the incidence of recovery could be much higher than it is, if the neurosis had not so often been fixed by treatment which disregarded the all important and fundamental issue of the motivating emotional conflict Other factors which have prognostic implications are the skill of the psychotherapist, the relative soundness of the personality, the success in uncovering the repressed conflict material, the seriousness of external factors, etc Obsessive compulsive neuroses are often trying and difficult to treat

Treatment of the Psychoneuroses The treatment of the psychoneuroses will be discussed in Chapter 11 particularly in the section on Psychotherapy

Psychosomatic Medicine and Psychiatry

Apparently, psychiatrists were the only physicians not surprised at the psychosomatic concept. The word was new, but everything else about it was old and familiar. Long since, psychiatry had taught that man was an indivisible unit and always functioned as such. Furthermore, in their everyday practice, psychiatrists constantly witnessed psychosomatic demonstrations. In patients with catalepsy, psychiatric stupors and many other phenomena, obviously the bodies of the patients were mirroring significant happenings within the psyche. Therefore, it was easy to understand that backache, headache, nausea, vomiting, etc., often are the body or psychosomatic expressions of unsolved, unconscious emotional conflicts.

Psychosomatics is very ancient. More than 2,500 years ago, after returning from the second Thracian campaign, Socrates chided the Athenian physicians because they did not understand that the body could not be made well without favorably influencing the mind. Long before that, men, from primitive to homo sapiens, have been trying to tell their medicine men, and later their doctors, what strong emotions did to their bodies—they had lumps in their throats, hearts pounded, stomachs turned over, or there were "butterflies" in them, they had "no guts," were paralyzed with fear, blinded with rage, etc. In China, so often a food-deprived land, two lovers separated from each other, instead of writing "My heart sighs for you," are more apt to write "My stomach is hungry for you," and there is the ancient and beautiful Chinese wish, "May joy sing in the topmost boughs of your heart."

There is much loose thinking about psychosomatics. For instance, it is often assumed that if an organ or part responds to increased emotional pressure by stepping up the tempo of its function (occasional nausea, frequency of urination, increased heart beat, etc.), the situation is pathologic. Not so. In a sense, the organ is merely exhibiting its considerable flexibility of function. Such reactions are fairly common in the life of every person.

A common clinical level is seen when the psychosomatic symptoms persistently obtrude into consciousness and the patients become concerned and anxious about them. This is apt to be indicative of unconscious emotional conflicts which are at an impasse. The psychosomatic symptoms represent a pathologic compromise.

Very briefly, three run-of-the-mill cases are presented.

A 49-year-old man was married to a 35-year-old wife and had two children. He felt desperate because he believed himself to be sexually impotent. He had "tried everything"—instrumental treatments, prostatic massage, hydrotherapy, electrical and ultraviolet rays, many vitamin and ductless gland prescriptions. He was worse—sharp pains in the sex organs, burning in urination, nocturnal emissions, headache, loss of concentration and energy.

In childhood he had had a dominant, aggressive mother and a Jehovahlike father, who frightened him by sermons on the direful results of sex lapses of any kind. There was very little parental affection. The psychosomatic symptoms appeared after unsuccessful coitus, which he said irritated his wife.

A 42-year-old married woman had severe nausea, vomiting, anorexia, headache and backache, vertigo. Complete gastro-intestinal roentgenograms were negative, and no benefit was derived from rest cures, special corsets, much medication and weekly gall-bladder drainages.

In a few interviews, it became clear that she had "lost all desire" for the sex act. She tried to lessen its frequency but, at the same time, feared that her husband would tire of her and leave her. "I never did care much about sex."

Her mother died when she was seven, and the most important figure in her life had been her father. "I adored him. He was my ideal of a man." Obviously, her husband, a pleasant, mature, matter-of-fact man, could not displace the father figure.

A 22-year-old college student feared that he was going to "flunk." He could no longer concentrate because of frequent "head colds," "stuffy" feelings, shortness of breath, chest pain, "stitches" in the side, nosebleeds, loss of weight, fatigue. Tuberculosis had been suspected but was definitely ruled out.

Many nose and throat treatments, diet and rest regimens did little or no good.

This young man was enormously relieved, at the first interview, at being able to ease his remorseful mind about his masturbation. All during childhood he had been tightly tied to the apron strings of an emotionally possessive mother who warned him constantly about girls and their "tricks" and "lures." He "tried sex," but the

setting of these few experiences was such that his inferiority was deepened

In these three patients who recovered, the psychosomatic symptoms in the genito urinary, the gastro intestinal and the respiratory systems were reactions to unsolved emotional conflicts. Of course, there was no demonstrable organ pathology.

Body organs are extremely elastic in their functioning, but there is a breaking point. If, in the face of unsolved emotional conflicts productive of much anxiety and tension, organ function is distorted overlong then the organ tissue may succumb. This is the third level of psychosomatics.

Mr H, 50 years old, was an extremely important business executive. In spite of the fact that he had achieved tremendous success and had a fine, intelligent and loving wife and two nice children, he was tense, anxious and unhappy for many years. He was an illegitimate child, never knew his father and had been raised in an orphan asylum. Incidentally, he told me he was 'afraid' of his children, feared they might 'find out about me'.

His stomach symptoms, beginning mildly with vague discomfort, stretched over more than 20 years, progressing in severity—nausea, headaches, vomiting, giddiness, constipation, diarrhea and many others. Ten complete gastro intestinal studies, including roentgenograms, were negative. The eleventh examination revealed a duodenal ulcer. Tissue had finally given way under the long continued impact of distorted function motivated by deep seated emotional conflicts arising out of rejection in his early life. It was not until after the duodenal ulcer was discovered that Mr H was willing to see a psychiatrist. He always said, 'It's my stomach that is sick, not my head. Besides, those fellows want to pry into your life.' Under psychiatric treatment, Mr H made a good adjustment.

Some years ago in consultation with a dermatologist, I saw a man 55 years old covered from head to foot with a flaming, itching dermatitis, so severe that several times his life was threatened by disruption of kidney function. He was a bachelor, who all his life had been attached to a "loving," possessive mother. He had made several half hearted attempts to marry, which were effectually blocked by his mother. Then he settled down in attendance upon her, not only looking after her considerable financial interests but practically nursing her whenever she was ill, which she was often. At such times he developed a few dermatitic patches. Incidentally, his mother suffered from an allergic dermatitis.

His mother died at an advanced age of a stroke. The patient had a dermatitic eruption at this time, but it was not severe.

He now devoted himself to settling the estate, which task he prolonged. He said he felt "she was still with me and that I am doing something for her."

However, finally he had to sign the last papers and hand the affairs to a Trust Company. Within 48 hours of this time, his entire body was covered by the rash, which soon became infected.

The duodenal ulcer and the dermatitis patient belong in that important area of psychosomatic medicine in which function has been too long and too hard pressed. The burden of the emotional conflict became heavier than the organ or part could bear, and tissue had to be sacrificed.

Incidentally, the skin is a very sensitive emotional barometer. Even in "normal" life, it blushes with shame and blanches with fear.

Interesting and significant is the answer to the question, What determines the locus of psychosomatic symptoms? In our five patients, the genito urinary system, the respiratory system, the gastro intestinal system and the skin were involved. In many other patients, the site is the heart and blood vessels, ductless glands, muscles, bones, joints, indeed, any part of the body, even the skin and the nails. (Many women complain that nail polish cracks just before the menstrual period comes on.)

Some years ago I attempted to treat a frightened little man overwhelmed by responsibilities—a sick wife, three children and a too small pay check. He became bald five times but unfortunately his head hair grew back only four times.

I believe that some day, armed with more data about personality emotional factors and markings, we shall be able to forecast with reasonable accuracy not only what organs, systems and parts of the body are likely to be vulnerable psychosomatic sites, but also certain diseases, types of circulatory, gastro intestinal, dermatogenic, perhaps arthritic disorders and many others, will be predictable and often preventable.

In considering the problem of psychosomatic location, it is important to remember the long distance effect of the emotional impress upon a child, of illness in a beloved parent or other relative. A young woman patient of mine, with an organically sound heart, had a great variety of severe heart symptoms—heart and radiating left arm pains, dyspnea, inability to lie on the left side, pallor, cold hands and feet, etc. During her childhood, her mother, to whom the patient was deeply attached, had organic cardiac disease. The child often witnessed the frightening attacks and, finally in the presence of the child, the mother died a cardiac death.

Environments, personal, social, occupational, are often determinants, in part, of psychosomatic locations. Once I proposed that "psychosomatic" be changed to "psycho-enviro-somatic."

Finally, one may gain a larger perspective by reaching back into man's dim, phylogenetic past. Primitive man ate the heart of the brave enemy he had slain to acquire more strength and courage. Sexual organs were symbolic of power in life. They still are. Often genital psychosomatic symptoms are the camouflage for unconscious anxiety about diminishing confidence in success in life.

Anciently, the gastro-intestinal tract was very literally the organ of survival. The difference between life and death often depended on the amount of food our primitive ancestors could get. In our time, much advertising is devoted to the life-giving and sustaining properties of a long list of patented foods.

In World War I, the greater number of psychosomatic symptoms in soldiers were cardiovascular; in World War II, gastro-intestinal.

In my opinion, undergraduate medical teaching is somewhat too traditional and static to meet the challenge of psychosomatic medicine. More hours are devoted to anatomy and dissection than to anything else. Remarkable progress has been made in teaching physiology and chemistry, and it is true that it is impossible to know too much about the workings of the body at the somatic level. Still, the teaching balance is wrong. In medical schools, an average of less than 160 hours is devoted to psychiatry—the study of man and how he thinks, feels and behaves. It is doubly unfortunate that in the first two years of medical teaching, the impact of psychiatry, comparatively, is so slight. There is the real danger that the physicians-to-be will learn to think of human illness in the one-track way of only tissue inflammation and destruction. They may become myopic to the teachings of psychological medicine and value only those things which can be seen through a microscope or in a test tube. Obviously, many patients will have to pay a penalty in terms of shortsighted and ineffective therapy.

Defect Reaction Types

GENERAL CONSIDERATIONS

Old words often gather undesirable and stigmatizing implications. This is true of "mental deficiency," "feeble-mindedness," "idiot," "imbecile," "moron," etc. There is a healthy tendency in the direction of substituting the phrase, "intellectually limited." For one thing, designations like idiot, imbecile, moron are not properly descriptive, since they are based largely on the I Q Intellectual limitation would be better expressed in terms of the potentials of trainability and social adaptability. However, since these words are still in common usage, they will be used here.

The defect reactions imply constitutional absences or deficits rather than acquired disease. Students of psychiatry are chiefly interested in mental deficiency (feeble-mindedness) and constitutional psychopathic inferiority. There are not less than 3,500,000 mental defectives in the United States, they constitute an enormous economic and social problem.

Etiology. Inheritance is significant, but other factors are also important: birth injuries, inflammatory brain reactions like meningitis, head trauma, severe endocrine imbalances, etc.

Grouping. Various classification lists have been proposed. On the basis of standardized tests, an idiot has an I Q not higher than 20, an imbecile, from 21 to 50, a moron above 50 and below 70. Above this level there are subnormal groups.

A behavior perspective is valuable. In idiots, the instinct of self-preservation operates very feebly, and the idiot is not able to shield himself against common physical dangers. Imbeciles cannot manage their own affairs nor can they be taught to do so. Morons require supervision, care and control and are not capable of competing with others, either in earning a livelihood or in protecting themselves from social dangers. Imbeciles and morons may show criminal proclivities but probably not in greater proportion than in the average population.

There are various pathologic types recognizable clinically. *Birth injury* cases are due to prolonged labor and forceps injuries, Little's

disease, a spastic diplegia and congenital athetosis are examples. *Cerebral inflammation* cases show a variety of neurologic symptoms. Congenital lues is indictable in about 10 per cent of this group. *Mongolism* is a congenital mental defect, usually with an I.Q. at the idiot or lower imbecile level. In a considerable number of instances, mongolians are born of parents between 37 and 40 years of age, and more than half of them are last in the order of birth. *Microcephaly* is distinguished by a small head and a brain usually weighing less than 900 grams. *Hydrocephaly* is due to blocks in the ventricular system or failure of fluid absorption. Lues, basal meningitis and internal birth hemorrhage may be basic. The fluid content may be more than 2,000 cc. Hydrocephaly is not inconsistent with average or even superior mentality. *Cretinism* is due to thyroid deficiency and, if treatment is instituted early enough, restitution

her normal and popular sister take her along to all parties and social gatherings, became frustrated and confused, and made a serious homicidal attack upon the normal sister. Very much needed is a better system of registration of intellectually limited children and many more special classes in the school system, especially manual training classes, so that these youngsters will not be engaged in the hopeless attempt of competing with those who are normal intellectually.

Treatment. This is not the field of specific therapy, but in cretinism, and in a few other instances, the results of proper treatment may be brilliant. The chief therapeutic weapons are adequate educational and manual training programs and the inculcation of habit patterns of physical hygiene. The high grade feeble-minded, if properly trained, may find satisfactory occupational levels. Many defectives should be treated, for a time, at least, in suitable institutions. Very much needed is a better system of registration of intellectually limited children and many more special classes in the school system, especially manual training classes, so that these youngsters will not be engaged in the hopeless attempt of competing with those who are normal intellectually. If there are pronounced mental symptoms, mental hospitals are needed.

CONSTITUTIONAL PSYCHOPATHIC INFERIORITY

Constitutional psychopathic inferiority is as much a defective state as is feeble-mindedness. Tested intelligence shows average, and even a superior level, but the behavior demonstrates that there is an innate defect in all other significant and important mental capacities. There is emotional instability, occupational inadequacy, impulsive conduct, absence of ethical and moral appreciation, disregard of truthfulness, decency and social responsiveness.

An idea of the tremendous social and economic problem may be inferred when it is remembered that, like the intellectual defective, the constitutional psychopathic inferior is *unable to profit by experience*.

Members of the group of psychopathic inferiors are very frequently in contact with the law, usually for relatively minor offenses, petty larceny, quarrels, threats, assaults, and many infractions of the motor vehicle code. There are serious problems of delinquency, venereal disease, prostitution, illegitimacy, alcohol and drug addiction, etc.

In the ranks of the constitutional psychopathic inferiors are included *inadequate, paranoid and emotionally unstable personalities*,

disease, a spastic diplegia and congenital athetosis are examples. *Cerebral inflammation* cases show a variety of neurologic symptoms. Congenital lues is indictable in about 10 per cent of this group. *Mongolism* is a congenital mental defect, usually with an I Q at the idiot or lower imbecile level. In a considerable number of instances, mongolians are born of parents between 37 and 40 years of age, and more than half of them are last in the order of birth. *Microcephaly* is distinguished by a small head and a brain usually weighing less than 900 grams. *Hydrocephaly* is due to blocks in the ventricular system or failure of fluid absorption. Lues, basal meningitis and internal birth hemorrhage may be basic. The fluid content may be more than 2,000 cc. Hydrocephaly is not inconsistent with average or even superior mentality. *Cretinism* is due to thyroid deficiency and, if treatment is instituted early enough, restitution may be accomplished. *Pituitary syndromes* include adiposities, gigantism, the syndrome of Froelich and the rarer Laurence Moon Biedl syndrome, etc. *Amaurotic family idiocy* is distinguished by its frequency in the Jewish population and the typical cherry red spot in the retinal macular area.

Mental defectives, notably in the lower grades, frequently have physical abnormalities (stigmata).

It is important to distinguish between mental defect and mental retardation. Mental defect, no matter how skillfully treated, cannot be corrected beyond the limitations of the innate brain pattern. Mental retardation is correctible. It may be due to impeding physical conditions like impaired vision or hearing, to environmental conditions like the speaking of an alien language in the home, to anxiety resulting from an emotional problem often concerned with sex or on the basis of inferiority feelings.

Psychotic Manifestations Particularly in the lower intelligence brackets, mental symptoms, when they occur, tend to be episodic—uncontrolled and long continued motor activity, hallucinatory phases, etc. Sometimes in imbeciles, and more often in morons, the mental symptoms may be more elaborate, amounting to manic depressive and schizophrenic reactions. However, the clinical patterns are simple and abortive, and the schizophrenia is much like the schizophrenia of primitive people, i.e., mere fragments of delusional formation, hallucinosis and a large segment of mannerisms, negativism, echolalia and echopraxia.

A sadly neglected area of psychotherapy is the treatment and the management of psychoneurotic and behavior problems which occur frequently at the higher levels of intellectual limitation. A patient of mine, a pretty moron girl of fourteen, whose parents insisted that

responsibility, responsiveness and often, elementary decency and seemingly the inability to learn from the lessons of life

Often it is erroneously assumed that because there is alcoholism or drug addiction or sexual perversion, etc., the individual is necessarily a constitutional psychopath. By no manner of means is this always true. Perhaps there is one exception. I never have known a real psychopathic liar who was not a constitutional psychopathic inferior.

Since so often psychopathic inferiority is the defense in criminal trials and since, too, it is the framework within which, again often, there is staged the unedifying battle of psychiatric experts, this is a good place to discuss briefly expert psychiatric testimony. Sometimes, but rather rarely, is the difference of opinion due to the venality of the psychiatrists. In spite of the belief of segments of the public and of some doctors and lawyers, psychiatric testimony cannot often be purchased. The situation is different from a consultation in private practice. Generally, in a trial, the psychiatrists on the contending sides try to obtain permission to confer and bring in a joint report to the court, but usually either the prosecutor or defense counsel declines permission. Usually, too, the prosecutor insists on a categorical "yes" or "no" answer to a question which cannot be honestly answered "yes" or "no"—the all important question, "Did the accused know the difference between right and wrong?" Thus, too often, there is the sorry dilemma of an accused man being legally sane but medically insane.

The legal concept of being able to distinguish between right and wrong and having the capacity to judge the nature and the quality of the act goes back to the MacNaughton rule, established in a British murder trial almost 110 years ago. It is archaic, the determination often rests on the flimsiest criteria, and it should have been abolished long since.

Two solutions are offered through the co operation of legal and medical societies in various sections of the country, panels of competent psychiatrists could be formed, the psychiatrists being willing to serve in turn at the request of the judge in any given case and with the consent of the prosecutor and the defense counsel. Such impartial testimony could not be suspect, and it would carry great weight. This plan would not involve any change of legislation.

The second plan would have to be implemented by new legislation. In it the psychiatric experts would be given every opportunity to examine the accused thoroughly and would be observers at the trial but would not testify. The guilt or the innocence of the accused, which essentially is the determination of whether or not he

alcoholics and drug addicts, pathologic liars and swindlers, kleptomaniacs and pyromaniacs, moral degenerates, sexual deviates, malingerers, hoboes, pseudoquerulants and others By no means are all individuals who belong to these separate groups constitutional psychopathic inferiors

The pathologic liar lies almost by rote and, usually, with an insufficient objective. The lies are much like the fantasy wish fulfillment of children. Pathologic swindling often is a logical outgrowth of pathologic lying. It is an acting out of the lying.

Little is known concerning etiology. One cannot go much beyond the statement that there is a constitutional lack or deficit, possibly an arrest of the emotional maturing processes. Psychopathologically, there is the picture of decided overcompensation for inner inferiorities.

As in the mental defectives, the majority of the psychotic reactions are transient and episodic, such as spontaneous excitements and depressions, emotional tantrums and upheavals, hallucinatory states, paranoid reactions, etc. The mental symptoms may be definite enough and continued for a sufficiently long time to constitute a manic depressive or schizophrenic reaction. Only a comparatively small number of constitutional psychopathic inferiors are admitted to mental hospitals. They are not well placed in hospitals or even in prisons and are apt to be disruptive of routine.

Long before the war, constitutional psychopathic inferiority was regarded with scientific agnosticism—an unsatisfactory scrapbasket into which was thrown a great variety of diagnostic odds and ends. War experiences doubly emphasized the unsatisfactory character of the diagnosis. One difficulty is that since there are no strong and clear-cut diagnostic criteria, the diagnosis has to be made retrospectively on the basis of a long history of psychopathic behavior. Nevertheless, the lengthy duration of the psychopathic behavior is the safest and most constant diagnostic check available. Far too often, misbehavior of recent occurrence and brief duration is mistakenly diagnosed as constitutional psychopathic inferiority. This error was made frequently during the war, and many instances of bad behavior which often were merely a reaction to the abnormal conditions of military life were labeled improperly. Fortunately, these situations are now regarded as "Personality Disorders" and often have a relatively good outlook if handled properly. There is a much smaller segment of constitutional psychopathic inferiority remaining revealed by a history of long continued, inadequate psychopathic and often criminal behavior, absence of social regard,

Treatment Including Psychotherapy

Drastic Therapies. The drastic therapies usually are considered to be insulin shock, electroshock and prefrontal leukotomy. There are other major pharmacologic treatments, such as narcosis therapy.* Under careful hospital and nursing conditions, deep narcosis, lasting from several days to two weeks, is produced by heavy hypnotic medication, preferably by sodium amytal. Considerable improvement was gained, particularly in early schizophrenia. There was helpful emotional "abreaction" in the outpourings of patients when the narcosis was lightened. Both this and the dream material was used in subsequent psychotherapeutic interviews.

With the possible exception of electroshock, which under carefully controlled conditions may be used in outpatient clinics, the drastic therapies should be performed in hospitals. Needless to say, they should be preceded by careful examinations of the cardiovascular and other body systems, including the vertebrae.

Carefully selected schizophrenic patients are most likely to be helped by insulin shock. The beginning dose of insulin is small, but it is increased rapidly until the shock dosage is reached. The treatment is continued for from 30 to 50 days. In the most common variety of shock, the patient sweats profusely, the pulse is rapid, the blood pressure falls, the skin is pale, wet and cold, the breathing is deep and heavy, and there is coma. There may also be dry shock. Shock is terminated usually after an hour by sugar solution orally or intravenously. Insulin and, indeed, all the drastic therapies should be followed by psychotherapy, dealing with the patient's conflicts.

In our experience, about one half the patients improve markedly with insulin, although for a year or more there is danger of relapse. Katatonic and paranoid types have the better outlook, the 21 to 35 age group is more favorable. Very young patients do not

* Used extensively several years ago by his late associate, Dr. Harold Palmer and the author.

committed the act, would be decided by the jury, the judge, the prosecutor and the defense. Then, the psychiatrists would be authorized to have an important voice in the decision concerning the degree of responsibility and the nature of the corrective punishment or treatment.

be organic brain damage. The usual series is 10 to 12 treatments (but often fewer), although 20 may be given. If not effective, the series may be repeated, but neither electroshock nor insulin offers the same promise when repeated. Sometimes, particularly in certain schizophrenic reactions, insulin and electroshock may be combined helpfully.

Dulling or even blotting out of memory is a very troublesome complication. The patient should be briefed carefully as to this likelihood, but then the patient may forget the warning. I never have seen permanent memory loss, though of course it may occur if there is brain tissue destruction. Other complications of electroshock are aspiration pneumonia, emboli, auricular fibrillation, cardiac dilatation, status epilepticus, fractures and dislocations.

To be viewed very seriously as probable contraindications are marked hypertension and arteriosclerosis, pregnancy, marked bony changes, hyperplastic or degenerative, seropositive syphilis, tuberculosis, cachexia, advanced cardiovascular disease. With much trepidation and only after thorough consultation with his ophthalmologist, I treated a man of 60 who had a very severe and disabling depression and also had had an operation for bilateral retinal detachment.

If electroshock is used too freely, then, by comparison, the brain operation of prefrontal leukotomy has been employed with almost wanton abandon for almost anything—for many psychoses, notably agitated depressions, psychoneuroses, alcoholism, sexual psychopathy, criminalism, etc. There are many variations of the operation, from the somewhat casual "ice pick" technic of which it is dangerously said, "Any physician can perform it," to intricate, carefully done brain surgery. Generally, some of the to and fro frontothalamic passageways are severed. It is well to remember that central nerve tissue cannot regenerate.

It is difficult to form an over all estimate of the final results. Something depends on the condition for which the operation is done, something on the amount of functioning tissue which is sacrificed. I believe that always there is some mental deterioration, sometimes slight, sometimes so severe that the patient is left at the level of a zombie.

Here are my criteria:

1. Chronic mental illness, not only from the standpoint of diagnosis, but also by reason of long duration.
2. Failure of all other methods of drastic therapy, including insulin and electroshock and, above all else, thorough psychotherapy.

respond so well To be viewed as thoughtfully as possible, contraindications are cardiac arrhythmia due to organic disease of the conduction system, coronary disease, severe myocarditis or valvular disease, organic impairment of liver, renal or pancreatic functions, severe endocrine dysfunctions Among the complications during and after treatment are allergic reactions such as hives, urticaria, edema, asthma, abdominal cramps and diarrhea, cardiovascular disturbances such as auricular fibrillation, "gallop" rhythm, coronary occlusion, aspiration pneumonia, laryngospasm, pulmonary edema, central respiratory failure, aphasia, hemiparesis, confusion, excitement, emotional dulling, dislocations and fractures from convulsions, prolonged coma, etc Mortality is less than one per cent

Blessedly, precision built machines, delivering an electric charge which instantaneously blots out consciousness and produces a convulsion, have largely replaced metrazol Metrazol was rather brutal treatment and could not be counted upon to abolish consciousness completely and sometimes, patients were terrified by preconvulsive aura In competent hands, electroshock is a relatively safe technic, with less than one per cent mortality Many modifications and refinements have been introduced, with which physicians should familiarize themselves A very promising modification is electro narcosis The most valuable addition to electroshock is curare which has greatly decreased the number of vertebral and other bony fractures

The selection of treatment by electroshock is not tempered often enough by good clinical judgment Its coverage is far too wide—almost all psychoses and psychoneuroses The priority clinical area is the depressions of late middle life * Here it is sometimes almost specific A few very acute katatonic episodes in young people are very favorable Next the depression phase of manic depressive psychosis is often cleared up, and occasionally the psychotic cycle is interrupted Generally in the manic phase, nothing much beyond the subsidence of the acute excitement is accomplished A small percentage of schizophrenics in whom the affective segment is prominent are benefited Electroshock is overused in the psychoneuroses Perhaps a few obsessive compulsive patients are helped, and occasionally in other neuroses, when there is a considerable retarding depressive element, a very few shock treatments may open the paths for more effective psychotherapy

Electroshock raises blood pressure, is a respiratory depressant and, particularly if a great number of shocks are given, there may

* There have been good reports from the intravenous injection of ether solutions

name In two amytol interviews he not only cleared up the amnesia but went back to the age of three, when he gave the picture of an unhappy childhood during which his mother had denied him love and affection, lavishing it on an older brother While scuffling, the brother had put out his eye with a stick In a voice thick with emotion, he recalled the only time he had been happy as a child was when his brother brought him home after the accident and his mother held him in her arms, kissing and petting him

In the Rorschach, or ink blot test, after suitable explanation, ten cards of varying design are presented to the patient He is scored according to his concepts of the identification of the figures, detail, form, color, amount of response, time, kind and elaboration of emotional reactions, bizarre replies, etc The Rorschach test furnishes a helpful guide to the personality markings, intelligence, self control, emotional life, the nature of the emotional conflicts and in a surprisingly large number of patients, the correct diagnoses

Wherever good psychiatry is practiced, psychiatrists and physicians are heavily in debt to psychoanalysis Here are only a few of its contributions It emphasized the importance of exploring the unconscious, the territory of hidden mental conflicts from which symptoms are derived It overcame the citadel of objective descriptive psychiatry and insisted that hidden meanings behind word and act must be interpreted in order to uncover the obscured mental lives of patients, in which were the starting points and the reasons for the symptoms Psychoanalysis for the first time loosed the tongue of patients, not only permitting, but encouraging talk—about any thing Today unhampered freedom of expression is a recognized component of every form of psychotherapy Psychoanalysis opened the closely shuttered house of sex and demonstrated clearly its significance, particularly sex trauma in early life, in the production and the shaping of psychotic and psychoneurotic symptoms

Naturally, all human disciplines are in some degree fallible, and psychoanalysis is not an exception Formal psychoanalysis is very time consuming Some, but by no means all or even the majority of analysts, are too ready to assume hypotheses, interesting but as yet unproved, as scientific fact It is that error of logic in which the conclusions exceed the premises Again, some analysts adhere too rigidly to dogma, being unwilling to tolerate the smallest deviation This has led to unfortunate splits in psychoanalytic groups Some analysts are not aware of or not enough interested in the significance of physiologic, electrical, chemical and pharmacologic advances in the better understanding of mind body and particularly, mind brain structure and functioning This hampers the totality

3 No somatic or brain contraindications

4 A highly important criterion—impulsive, aggressive and often homicidal behavior motivated by vivid hallucinosis, usually auditory

With these criteria, I have found in 13 years only 18 patients for whom I suggested the operation. All but two of the patients were long standing, seemingly hopeless schizophrenics. Of the two exceptions, one, an agitated depression, died a few days after the operation, the other, an obsessive compulsive, was helped only slightly. Of the 16 remaining patients, all were improved, from considerable to very little. In three patients, the gain was phenomenal, amounting to social recoveries. In one patient, a 52 year old woman, after 18 years of an excited, dangerous schizophrenia, marked by intense hallucinosis, a medical miracle was achieved. Now, four years after the operation, the patient lives successfully and happily outside a mental hospital, has retied her family ties and has no symptoms beyond occasional feelings of irritability.

Pathotherapy. If clinical diagnostic tests are designed to uncover hidden somatic pathology, then the uncovering technics of psychiatry have as their objective the revealment of the inner nucleus of truth in the unconscious—the real nature of the symptom producing the mental conflicts. The most important uncovering technic is the free association and dream analysis of psychoanalysis. In lesser, but often sufficient degree, "support" therapy (which is the main reliance of the general and nonpsychiatric practitioner) has the same purpose. Quite as important as a heart valvular vegetation or liver abscess in general treatment, is in psychotherapy, perhaps a strong latent homosexual drive determined by maternal over possessiveness during the childhood of the patient, or a repressed belief that husband or wife is unfaithful.

Hypnosis, narcosynthesis and the Rorschach are uncovering technics and, in themselves, they have a certain amount of treatment value. Narcosynthesis or the pentathol or sodium amytol interview is produced by injecting solutions of these drugs into the veins, until a "groggy" state of consciousness is produced, in which inhibitions are removed and repressed material comes out. Its value was demonstrated in war, whereas in civilian life it is particularly useful in uncovering recent, highly traumatizing material, such as having seen a "buddy" suddenly blown to pieces by the enemy's fire or having witnessed the infidelity of a husband or wife. Sometimes very remote material is brought to light, as in a 47 year old male patient of mine, who had lost one eye in childhood. When brought to the hospital, he was completely amnesic even for his

dermatologists, orthopedists, surgeons—in short, by all doctors. Of course, there must be some appreciation of human psychology, of the personality, particularly in its unconscious components, of the significance of repression in shaping symptoms, of the mechanisms of defense which are compromises with reality, used to construct the neurosis. After all, these things are comparable to the anatomy, the physiology, the chemistry and the pathology which the physician must know in order to treat disease successfully at the physical level.

Here is my definition of psychotherapy: "Psychotherapy is any honest treatment measure, emerging from the relationship between patient and doctor, which improves the understanding and the attitude of the patient toward self, toward his illness and toward his environment."

In all treatment, particularly in psychotherapy, there is a constant interreaction between patient and physician. The physician's attitude is all important, and therefore it is well to begin with a few of the qualities needed to make a competent therapist. He should like people and be sincerely interested in their problems. He should have a reasonable degree of emotional maturity. His attitude should be objective. This does not rule out interest and sympathy, but it does preclude quick, thoughtless and strongly partisan attitudes for or against his patients. His own life, with reflection upon his mistakes, should teach him that first impressions may easily be erroneous. He should be wary about accepting offhand the opinion of a wife about her husband or vice versa. He should be firm but yet kind and explanatory, like a good father or older brother. He should be truly humble, for it is given to him to try to explore the human mind.

The natural starting place in psychotherapy is a good, thorough *physical examination*. This has something more in mind than the occasional discovery of determining somatic pathology. The examination in itself is therapy, and the good psychotherapist is ever on the alert to turn his findings into useful treatment channels.

The physical examination may turn up some trivial finding perhaps an inconsequential heart murmur, which is being used to continue the neurosis. If the physician is sure of his ground and firm and decisive in his attitude, he can make considerable therapeutic headway. If he is vacillating and lets the patient lead him into fruitless discussion—"People do die of heart disease even when the cardiogram was negative, etc."—then treatment ground is lost.

The examination, too, particularly in young patients, may find such conditions as acne, obesity, slight eye casts, outstanding ears

of therapy and produces unfortunate isolationism between general medicine and psychoanalysis—a serious loss to both. In spite of these few difficulties, just as physicians are beginning to gain a better appreciation of the value of psychoanalysis, so, too, is psychoanalysis undergoing modifications in the right directions. It remains the most important technic for the understanding of many psychotic, psychoneurotic and other psychiatric disorders, from which flow dynamic treatment principles and practices.

An industrious, competent analyst can treat about 8 patients in two and one-half to three years. It is obvious that as direct therapy, orthodox psychoanalysis can carry only a small fraction of the huge case load. Fortunately, many patients do not need orthodox analysis. Often the conflict material is not so deeply imbedded but that ordinary psychiatric techniques and psychotherapy, such as will be described, are sufficient to uncover it and give patients enough self understanding and emotional growth to make a good go of their lives. Again, often when the external pressures, material and psychological, are recent and severe, and the ego is fairly strong, then "support" therapy suffices. Finally, as in sickness at the somatic level, there are many "functionally" sick patients who cannot recover, no matter how brilliant be the psychotherapy. For these patients, sound "support" therapy often makes the difference between leading their lives with reasonable satisfaction or struggling ineffectually and hopelessly. A certain number of overt homosexuals fall into this category. True enough, their sex patterns cannot be reversed, but the guidance of a wise psychotherapist, whom they respect, who understands their problems and behavior, though he does not condone it, who does not despise them, saves many of them from complete futility and despair.

"Support" therapy implies a great deal more than the utterance of Pollyanna bromides, verbal back pappings or preaching. It deliberately employs definite methods and techniques. It is designated "support," to distinguish it from deeper, analytical or "target" therapy, which aims directly at the target of unconscious repressed material. Nevertheless, skilled "support" therapy almost always touches the periphery of repressed symptom-producing material and, indeed, often penetrates it deeply.

Here is the current situation. One psychiatrist where at least 6 are needed, sixty per cent of human sickness cannot be understood, much less treated successfully, without careful attention to its predominant psychiatric facets. Obviously, the major number of so-called psychiatric patients, not only must but *should* be treated by general practitioners, internists, obstetricians, gynecologists,

Some patients who feel very guilty about what they call "abnormal sex thoughts," or a wish for someone's death, are much helped by simple reassuring explanation of how common and natural such thoughts and wishes are, and that they are very far from actual wrong-doing.

Occupational therapy is one of the strongest weapons of psychotherapy, but it must never be prescribed in casual, hit or miss fashion. It goes without saying that the therapist is far too intelligent and mature to subscribe to the still prevalent idea that a neurosis is nonsense and all that is needed is plenty of hard work!

Here are a few thoughts about the use of occupation in psychotherapy.

1 Making something is symbolic of everyday living, and therapeutic occupation makes the patient feel less isolated from his fellow men and blocks retreats into unreality.

2 Occupation should be suggested with an eye to the patient's personality markings and psychoneurotic reactions. For instance, for patients who feel inadequate, inferior and even masochistic, usually it is not wise, at first, to suggest complex occupations, even if they are intellectually capable of doing them. Better, perhaps, a very simple type of rug weaving. As the patient progresses to more complicated occupation, it is often a measure of improvement. Generally, handwork, since its products are more concrete, is more satisfactory than intellectual exercises.

3 Whenever possible, the therapist should try to use the occupation as an antidote to the nature of the mental conflict, a kind of atonement for hidden neurotic guilt complexes. One of my patients began to make rapid strides toward recovery after she followed my suggestion that she learn to make Braille books for the blind. She did not realize until later that this work was so effective, since much of her guilt was derived from inner self blame that she had "neglected" her mother, who had died insane and blind.

Now and then, occupation seems to be dramatically curative. A talented sculptress had had classical migraine (diagnosed by many eminent neurologists) for 20 years, one night when she felt an attack of migraine coming on, she took up her clay and modeled exquisitely a tiny female figure being cruelly crushed in a comparatively huge fist. It was her conception of the pain of migraine. From that instant, until her death many years later, she never had another migraine attack.

The skilled therapist does not suggest occupation merely to pass the time but, from the background of his appreciation of the pa-

and other deformities, speech defects and many other things. They are not the causes of the neuroses, but often they are quite important, since they may be the focusing point of ego damaging inferiority reactions, dating back to repressed childhood experiences. It may be helpful to correct the difficulties, clearing the way for more effective psychotherapy.

Orthodox analysts usually do not personally examine patients, feeling that the intimacy involved carries the danger of creating too great emotional dependency in patients. However, in the kind of therapy I am describing, the physical examination is a valuable part of treatment.

Incidentally, there is no reason why the psychiatrist and psychiatrically minded doctor should not use any of the treatment resources of modern medicine, including drugs and even surgical procedures. There is one condition that *must* be observed. The medicine or other treatment measures must never be given in a mysterious or deceiving manner. The patient must understand thoroughly that physical treatments cannot cure a condition due to unsolved, unconscious mental conflicts. From time to time, they may be useful in relieving a stubborn symptom, like severe insomnia, thus clearing the way for more rapid psychotherapeutic progress.

The simplest, but often very useful, item of psychotherapy is *reassurance*. It must be kept within the framework of truth and it must be sincere—not merely the casual, parrotlike repetition of phrases to patients like, "You look fine today." On the other hand, even such a simple statement, if it is given with thought in mind to the patient's underlying psychopathology, may be helpful. For instance, a young woman patient had had considerable neurasthenic preoccupation and many psychosomatic symptoms concerning the fear of tuberculosis. Considerable progress had been made in therapy, and the patient understood that the fear was groundless and had its origin in the deprivation during childhood, by death from tuberculosis, of a beloved mother. The patient still had occasional anxiety that produced emotional misgivings. So when I said, "You look well today," it gave the reassurance of knowing what I meant and that I understood. A small thing to be sure, but the mosaic of recovery is often made by fitting together many small pieces.

Often an immense amount of relief can be given to patients at the first interview, if it is possible to reassure them truthfully about three things:

- 1 That they are not psychotic
- 2 That their conditions have not been inherited
- 3 That there is an excellent chance of recovery

Some patients who feel very guilty about what they call "abnormal sex thoughts," or a wish for someone's death, are much helped by simple reassuring explanation of how common and natural such thoughts and wishes are, and that they are very far from actual wrong doing.

Occupational therapy is one of the strongest weapons of psychotherapy, but it must never be prescribed in casual, hit or miss fashion. It goes without saying that the therapist is far too intelligent and mature to subscribe to the still prevalent idea that a neurosis is nonsense and all that is needed is plenty of hard work!

Here are a few thoughts about the use of occupation in psychotherapy.

1 Making something is symbolic of everyday living, and therapeutic occupation makes the patient feel less isolated from his fellow men and blocks retreats into unreality.

2 Occupation should be suggested with an eye to the patient's personality markings and psychoneurotic reactions. For instance, for patients who feel inadequate, inferior and even masochistic, usually it is not wise, at first, to suggest complex occupations, even if they are intellectually capable of doing them. Better, perhaps, a very simple type of rug weaving. As the patient progresses to more complicated occupation, it is often a measure of improvement. Generally, handwork, since its products are more concrete, is more satisfactory than intellectual exercises.

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ness, or by disregarding the patient's behavior. Such behavior is usually regressive, a throwback to childish behavior—angry tirades or even attempting to strike the therapist, tantrums of jealousy, pseudosuicidal attempts, "convulsions," etc.

While I was explaining to a girl of 16 the emotional immaturity involved in some of her conduct, she staged such a convulsion in my office. I said to her firmly "Stop that. You have enough real symptoms without making up any. Besides, you will get your dress wrinkled and dusty." She got up and replied "O K. Let's forget it."

However, the therapist must be sure of his ground, not uncertain or alarmed. Otherwise, the patient will sense his attitude and either take advantage of it by more and more regressive behavior, or else he will become frightened and panicky. Here agains the therapist is like the wise father whose child is misbehaving—kind but very firm, not at all upset, not contemptuous or cruel.

Suggestion In spite of the ease of using suggestion, since all human beings are suggestible and psychoneurotic patients in particular, and even though the first effect of suggestion often is dramatically effective, still it is the least serviceable of the psychotherapeutic technics. It is too reminiscent of the setting of the ancient medicine man, with the electrical spark or other device, substituting for the primitive mask and weird incantations. It is gross deception. It appeals to the emotions. It merely substitutes one illogical idea for another—for instance, the patient believes that the electricity cured the hysterical blindness. Suggestion threatens the only satisfactory relationship between patient and doctor—mutual honesty and trust. It makes its appeal to emotional immaturity and encourages harmful emotional dependencies. Too many patients, especially at the beginning, are eagerly looking for and expecting to be cured by a panacea or "trick" of drug or machine.

Suggestion does have a small range of usefulness, and sometimes, with suitable explanation to patients, it may be employed to remove a symptom which is blocking treatment, perhaps functional aphonia or deafness.

In skilled hands, hypnosis, divested of weird passes and mystery, is an example of the scientific use of suggestion. Sometimes it is quite helpful, not only in removing symptoms but also in obtaining information about hidden conflicts, often this information may be used to further psychotherapy.

Internal and External Pressures In every patient one of the important duties of the therapist is to estimate the relative weight and gravity of internal and external pressures. Much internal, repressed, unconscious material is derived from once-external, ego-

tient's conflicts and problems, he uses it thoughtfully to strengthen the ego of the patient

Entertainment, diversions, hobbies and avocations may be used therapeutically in the same planned way as is occupation. Sometimes a hobby may be a direct outlet for mental conflicts. Levine has suggested that some patients who have a great deal of fear and guilt, provoked by unsatisfied sexual curiosity during childhood, may be helped by the legitimate satisfaction of the curiosity by adopting the hobby of a study of natural history.

Incidentally, a small test of the maturity of the therapist sometimes crops up in the matter of suggesting hobbies, avocations, etc. The therapist will have his own dislikes, which may include women's club activities, interior decorating or what not, but he must be mature enough to surmount his own dislikes and suggest the activity, if it will be helpful.

Daily Scheduled Activities. Sometimes in the course of treatment, the therapist is likely to consider the possible benefit to be derived from having the patient follow a routine of daily scheduled activities. Such a schedule is a crutch, but sometimes a much-needed crutch. Like some orthopedic patients who do better without artificial braces and supports, the egos of some psychiatric patients are served better by not having a daily schedule. Some patients may need it for a long time, others, only briefly, some may need it at the beginning of treatment, others, when the going is rough. Sometimes, in obsessive compulsive patients, something definite to do, such as taking a brisk walk, saves them from the paralyzing inactivity of morbid indecision. Perhaps the best way of expressing the correct attitude of the therapist about the patient's schedule is to say that it should be like that of a wise father to a child—at first he may participate to a considerable degree in the activities, but rapidly he leaves more and more to the child's initiative.

Discussion of the schedule gives an opportunity to expose what should be another facet of the therapist's maturity in all his dealings with his patients. His experiences in his own life have left their marks on his personality. Perhaps, in themselves, these experiences have tended to make him a rugged individualist who might expect too much of his patients, or oversympathetic, not expecting enough display of strength. In any event, he must know himself well enough to be able to discount his own personal reactions in his relations with his patients.

Authoritative Firmness. While there is no place in modern therapy for intimidation, threats or rigid authoritarianism, yet there are situations which are best met by some display of authoritative firm-

Counsel and Guidance. Many patients, particularly in the early stages of treatment, continually beg the therapist to advise them about this or that and to make decisions for them. The orthodox analyst is apt to decline to advise or decide, since his stake is the uncovering of mental conflicts and the eventual self understanding of the patient. Furthermore, he feels that there is danger of creating too much emotional dependence. It is true enough that the indiscriminate and overuse of counseling and deciding for patients does create too much dependency and further weakens the ego of the patient. However, if the therapist appreciates the nature of the underlying conflict, often he can counsel and guide helpfully. Naturally, decisions about very serious steps in life, marriage, divorce, occupation, etc., should not be made for the patient. Often it is wise to suggest to the patient that he postpone making important decisions until the treatment is more advanced.

How much advice and counsel to give depends on the personalities of both patient and therapist. If the patient has a reasonably strong personality, merely temporarily incapacitated, then it is better to let him work out his own daily problems. If he is weaker and flounders about aimlessly, then he will need some guidance and support. The therapist will know enough of himself, as to whether his own experiences in life have made him tend to be too quickly and positively decisive or not enough so. He will be careful not to impose upon his patients his own personality shortcomings in these directions.

In each one of us there is a certain amount of Hostility and Aggressiveness. Naturally enough, some of it would be innate, a remnant of the struggle for survival or our phylogenetic history. Another reason is that in our childhoods our mothers and others in authority insisted that we conform socially, which we disliked and resented.

The therapist is more interested in hidden and deep hostilities, usually dated in childhood situations, in which there was wanton disregard of the basic psychological needs of children. Hatred of a mother or a father cannot be endured openly and continuously by the personality of a child. Therefore, such reactions become deeply hidden under guilt feelings, phobias, etc. The therapist is on the alert for clues as to the nature of the unacceptable psychic material and comes to an understanding of the contending elements of the mental conflict. For instance, a fear of dirt and infection leading to ritualistic orgies of keeping self and the house spotlessly clean, may be an overcompensatory reaction to deep seated guilt, marking an unconscious death wish directed at husband or wife or some member of the family.

traumatizing emotional experiences, particularly during childhood. Not one of us may hope to escape environmental liabilities. Sometimes they are catastrophic. Internal and external pressures react on each other. Often the external acts as a trigger, exploding deeply repressed psychic material. The psychotherapist knows what he must try to do about unconscious mental conflicts. They must be brought to the surface of consciousness, so that the patient may see them in their sources and implications.

What if anything can be done about external pressures? First, it is necessary for the therapist to weight each patient's ego reaction to his internal and external pressures. In all of us, sick or well, our reactions vary. Some patients feel ashamed if they do not stand strongly against the buffeting of life. They do not lose much psychological face from difficulties and symptoms which they feel come from within—"Not my fault. I could not help it." Other patients blame themselves because they feel that they should have developed stronger and more resistant personalities. They feel that they could deal fairly adequately with the concrete realities of life, and often they do. It is the symptoms that come from a threat they cannot come to grips with that frightens them. Here again the therapist needs to take stock of his own limitations in these areas and not visit them upon his patients.

It is not easy to do something constructive about external pressures. Often it is not possible in civilian life (as it was in war in the case of the combat-fatigued soldier) to remove the patient from the combat theater of his daily life. After all, the therapist cannot make the bankrupt affluent again or restore the love object lost by death or rejection.

However, by tactful manipulation it is often possible to improve the personal environment. Therapeutic caution and wisdom are needed. In a patient who already feels guilty because his illness is making it so hard for his family, it would not be good judgment to instruct the family to be so considerate and so constantly on guard that they check every word and act in the presence of the patient. On the other hand, in a man who had strong guilt feelings covering a deep unconscious hostility toward his wife (since she, like his mother, dominated him and gave him little affection), it was good judgment to put him for a time in a sanatorium, where the mother-wife complex was not constantly intensified by daily contact with his wife. There are innumerable ways in which therapists can modify the environments of patients, so that they become favorable rather than inimical.

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for this is that the therapist himself does not sufficiently understand the mental conflict. Perhaps some particular symptom for instance a tic which distorts the face with horrible grimacing, may become unpleasant to the therapist, largely because it is repeated so constantly. When this happens, it is time for the therapist to take his own bearings and remember that more likely than not, in back of the tic or other irritating symptom, there is the tragedy of a serious mental conflict and often the long gallant struggle of the patient to overcome the symptom. Compassion should be a prominent element in the therapist's character. Perhaps the chief reason for impatience with some patients is that their conflicts have touched vulnerable areas in the therapist's own psyche. Again he must remember to "Know thyself."

As all human beings, particularly in childhood, have certain basic physical needs which must be satisfied if the body is to develop normally, so too, and notably in childhood, are there certain Basic Psychological Needs which must be supplied, else a reasonably sound personality cannot be built. Here are some of the needs: a reasonable amount of recognition and security, otherwise the ego will be emotionally starved, as the body would be starved physically, if it were not supplied with enough food, love and affection, both to receive and to give it, some satisfaction of sexual drives, opportunities for work, activity, recreation and leisure, a balance between dependence and independence, since there should be developed the capacity to be able in every adult relationship (significantly in marriage) to receive emotional warmth and support and, conversely, to bestow it, some independence and self assertion.

Probably, too, as a prelude to adult living the child should not be so overprotected and even spoiled, so that there has been no experience with frustration and anxiety, such as would come from being required to conform to minimal social expectations and demands.

A 15-year-old girl, in addition to psychosomatic symptoms, had a marked phobia about women's hands. She said that the way women painted their nails and waved them about to attract attention was nauseating and disgusting. (She never tinted her own nails, and her hands were rather ugly with stubby fingers and ragged nails.) Jane was in the art class at school, and it was suggested that she draw some women's hands. She drew hundreds—all ugly, some with swollen joints, others shriveled and clawlike, usually with one or two fingers amputated by an eraser. At first Jane did not know, but soon she realized that she was drawing her mother's hands. (Jane's mother had beautiful hands and tinted the nails very luridly.) Underneath, in Jane there was strong hostility toward her mother, who, when Jane was four years old, had divorced the child's alcoholic father and married again a year later. As through therapy, Jane's understanding of her problem increased, her drawings improved and soon she was sketching very nice-looking hands.

Sometimes, general outlets for hostility are useful. Brisk exercise may help to dissipate pent-up emotion. An important business executive who hated Franklin D. Roosevelt claimed that he secured considerable emotional relief and increased the yardage of his drive, by having the President's likeness stamped on his golf balls. He had a sense of humor. Incidentally, a sense of humor is an asset for the therapist. But it must be kind, not ironical or cynical, humor that laughs with the patient, not at him.

In the matter of dealing with hostility, it is essential that the therapist know himself thoroughly. Like other human beings, he has likes and dislikes, perhaps even mild biases and prejudices, but he must surmount them in dealing with patients, and, as for hate (unless it be hatred of something fundamentally evil), there is no place for it in his make-up. If he really hates, then he is not fit to treat sick human beings.

The therapist will hear many strange and sometimes sordid stories from patients. All the more reason that he retain a noncondemning, noncritical, nonjudgmental attitude, accepting, though not necessarily condoning, these conditions. Such an attitude is not a matter of the words that the therapist utters. It must be sincere or else, eventually, the deception will be discovered by the patient. Of course, doctors are human. There will be some lapses—a bit of criticism, or anger now and then. If these lapses become frequent and marked, then the therapist should take stock of himself. Perhaps he is overfatigued. More likely he is irritated that the patient is not progressing rapidly enough in therapy. Often, the real reason

Important levels in therapy are *confession*, *ventilation* and the *psychiatric interviews*. Confession is the story the patient tells the therapist and, in itself, it is an important treatment step. Pent up, hidden thoughts and feelings are poured out into words. Frightening ideas and emotions are made less so by being objectified. Confession both lessens and punishes guilt. It is lessened by being shared with the therapist. Often the patient comes to realize that the dimensions of his guilt are much smaller than he thought. Also, the patient is punished by confessing. It is shaming to reveal weaknesses and misbehavior to another. Often it is a healing punishment. The therapist is not contemptuous, but he does not condone, unless he can do so honestly. Some patients are so masochistic or sometimes so exhibitionistic that they berate and flagellate themselves mercilessly. Then it may be good judgment on the part of the therapist to moderate the verbal orgy.

In ventilation, the therapist takes the material gathered from the confession and the psychiatric interviews, deciphers the meaning, and he and the patient view it from the standpoints of its meaning and operation in producing symptoms.

I think the best definition of a psychiatric interview is given by Rennie. "A psychiatric interview is not the same as a social conversation. It is a process specially devised to permit the patient to express anxieties and uncertainties, fully and without reservations, to the physician, who will not interfere or hamper the spontaneity by injecting his own personality into the situation. In essence, it is sensitive, objective, understanding, non interfering listening."

In the psychiatric interviews, the therapist listens with all his skill and experience. Often the first interview is very productive, since the patient has not yet identified in the therapist any of the figures of his past life and may speak with less inhibition. Often too, the outlines of the conflict are close to consciousness and emerge easily. Occasionally, I have interrupted a story of "stomach" or 'gallbladder' troubles by saying, "And now what is your real problem? This may draw an emotional outpouring, indicating clearly that the real source of the symptoms is not in the organs of the body, but in the anxiety engendered by a tangled marital situation or an unhappy childhood."

Theoretically, the psychiatric interviews are on a conscious level, the patient telling the therapist what he remembers of his life experiences. Actually, however, it is much more than merely a process of remembering and a great deal of repressed material comes to the surface.

From the psychiatric interviews, there comes into existence an

therapist is quite as important and certainly more difficult. Perhaps one partner in a marriage is not getting enough love and affection and too much domination from the other. This may be remedied sometimes by a few conferences with the other partner, provided that he or she is not too immature emotionally. If the husband, or the wife, who is expecting too much and giving too little is decidedly immature, then treatment by another psychiatrist is indicated. It is unwise for one psychiatrist to try to treat both husband and wife, since soon he will encounter pressures to "take sides" and, under these conditions, constructive therapy cannot be carried out.

Very different from normal basic needs are neurotic needs. They consist of all sorts of desires, cravings for sentimental sympathy, or sometimes even cruel treatment. They are derived from the neurosis, usually they are unconsciously selfish, and it is unwise to attempt to satisfy them directly. They are better dealt with by having the patient achieve an understanding of the underlying meaning of the neurosis. Perhaps one may think of an analogy to some metabolic disorder like diabetes. The diabetes is the result of the failure to satisfy certain basic metabolic needs. However, the symptom of a craving for sweets is an abnormal manifestation of the basic metabolic insufficiency. To give the patient a lot of sweets would be harmful.

Sometimes an experienced therapist may find a compromise by attempting to satisfy a neurotic need. A 45 year old man, latently homosexual, never married. His mother died when he was born and his father never remarried, devoting himself to his son. Father and son were lawyers and lived together happily, having in common both professional and social interests. When the father died, the son developed a severe anxiety neurosis, with many psychosomatic symptoms. It was suggested that he look up some of his father's old cronies. He found a former close friend of his father's, a retired judge, a bachelor, who lived at his club and was very lonely. The two men became very friendly, spent considerable time together, and my patient's neurotic symptoms disappeared. Of course, the judge was the father surrogate, and the need for a father surrogate was neurotic. Nevertheless, something constructive was accomplished, and the patient resumed his useful legal practice.

All psychotherapy seeks to strengthen the ego of the patient. In this process the patient identifies with the therapist. He is the source of strength and wisdom, and upon him patients try to pattern their lives. In a way, he represents the kind of father and mother that the patient unconsciously wanted in childhood but did not have. He is like the good, kind but wise father.

ing on immediate gratifications and attempting impulsively to satisfy them. He learns the value and the long-range satisfactions of postponements, modifications, reasonable compromises and working intelligently toward a goal in life.

Usually, intellectual understanding alone of the emotional conflict, even though it be highly developed, does not suffice. Generally, there is needed the healing effect of some emotional reaction. This need not be of the terrific intensity which was often witnessed in soldiers in a pentathol interview, when the horrible war experiences were not only remembered but vividly relived. In ordinary psychotherapy, sufficient emotional release comes from the confession, ventilation, psychiatric interviews and the transference which develops from the relationship between patient and physician.

There are many other avenues of therapy, which the therapist may explore. A sadly neglected one is *bibliotherapy*. Selected readings, not only psychiatric but even more usefully from the great literary masterpieces of all ages, may be suggested to the patient. Since they contain great and sublime truths, often of psychiatric significance, their appeal to the minds and hearts of men is universal and ageless.

Group therapy follows an exceedingly important treatment concept. Ten or fifteen patients, sometimes more or less, who have something in common in the type of illness, meet together regularly under a group leader. He is careful not to monopolize the meeting, usually speaks only briefly; the objective is to promote general discussion. From the discussions there comes a leavening, desensitizing influence. Patients are surprised and benefited to learn that symptoms of which they have long been ashamed and they have concealed, perhaps a fear of being alone, are present in other patients. The symptoms become less frightening by being shared in common. Also, there is considerable emotional release from the discussions. Various members of the group are identified by others as surrogates for those in the past life of the patients or in the family constellation. Often there are heated arguments. Hostilities are aired. Understanding and sympathy are expressed. Guilt, hostility, fear and depression are diluted. For many patients, group therapy is an education in the meaning and the mechanics of psychoneuroses and in self-understanding.

increasingly stronger bond between patient and physician. The patient feels more confident and secure, and *transference* is in the making. There is transference in every patient doctor relationship. It has innumerable gradations, from mere liking and respect for authority to the transference of psychoanalytical therapy, in which the analyst becomes the figure of a strong love-object in the early life, perhaps the father, and the patient acts out his love and hate upon the analyst.

In ordinary psychotherapy, such deep transference is not desirable. In a general way the patient loves, admires and respects the therapist. He is regarded as authoritative, wise, reliable and understanding. He accepts the patient as he is and wants to help him.

Sometimes the therapist takes a treatment leaf from the practice of the allergist, who may desensitize patients by injecting small doses of the pollen or other offending material. The therapist may practice psychological *desensitization*. A middle aged woman, happily married and with grown children, became very psychoneurotic and self blameful because she occasionally became "excited" when she met socially, intelligent, athletic men. Very gradually, it was explained to her that marriage does not remove all possibility of emotional reaction to the opposite sex, that an important factor in social relationships are our "likes" for people, perhaps because unconsciously they remind us of those we love, etc. Before the therapist attempts psychological desensitization, he should have good understanding of the nature of the underlying conflict and of the personality of the patient. Furthermore, he should note carefully the reaction, and increase or decrease the desensitizing dose accordingly.

Desensitization may be direct, as in certain fear reactions that are not too deep seated. For instance, gradually teaching the patient who has a fear of lightning to sit, at least for a time in a chair during a storm, instead of at once diving headlong for the bed and hiding under the covers. Many World War II aviators were saved from lifelong neurotic invalidism by inducing them to accept a briefing for a flying mission, soon after one had ended in disaster. To desensitize successfully, the therapist must have and give out confidence. Uncertainty is contagious and fatal. Here again, the therapist is the strong, dependable father from whom stability and emotional security are derived.

After the mental conflict has been worked out, then there is the time for re education. For one thing, the patient is now able to appraise his mistakes and faulty attitudes. He begins to realize that the neurosis was a childish way of trying to meet adult life—insist-

ing on immediate gratifications and attempting impulsively to satisfy them. He learns the value and the long-range satisfactions of postponements, modifications, reasonable compromises and working intelligently toward a goal in life.

Usually, intellectual understanding alone of the emotional conflict, even though it be highly developed, does not suffice. Generally, there is needed the healing effect of some emotional reaction. This need not be of the terrific intensity which was often witnessed in soldiers in a pentathol interview, when the horrible war experiences were not only remembered but vividly relived. In ordinary psychotherapy, sufficient emotional release comes from the confession, ventilation, psychiatric interviews and the transference which develops from the relationship between patient and physician.

There are many other avenues of therapy, which the therapist may explore. A sadly neglected one is *bibliotherapy*. Selected readings, not only psychiatric but even more usefully from the great literary masterpieces of all ages, may be suggested to the patient. Since they contain great and sublime truths, often of psychiatric significance, their appeal to the minds and hearts of men is universal and ageless.

Group therapy follows an exceedingly important treatment concept. Ten or fifteen patients, sometimes more or less, who have something in common in the type of illness, meet together regularly under a group leader. He is careful not to monopolize the meeting, usually speaks only briefly; the objective is to promote general discussion. From the discussions there comes a leavening, desensitizing influence. Patients are surprised and benefited to learn that symptoms of which they have long been ashamed and they have concealed, perhaps a fear of being alone, are present in other patients. The symptoms become less frightening by being shared in common. Also, there is considerable emotional release from the discussions. Various members of the group are identified by others as surrogates for those in the past life of the patients or in the family constellation. Often there are heated arguments. Hostilities are aired. Understanding and sympathy are expressed. Guilt, hostility, fear and depression are diluted. For many patients, group therapy is an education in the meaning and the mechanics of psychoneuroses and in self-understanding.

increasingly stronger bond between patient and physician. The patient feels more confident and secure, and *transference* is in the making. There is transference in every patient doctor relationship. It has innumerable gradations, from mere liking and respect for authority to the transference of psychoanalytical therapy, in which the analyst becomes the figure of a strong love object in the early life, perhaps the father, and the patient acts out his love and hate upon the analyst.

In ordinary psychotherapy, such deep transference is not desirable. In a general way the patient loves, admires and respects the therapist. He is regarded as authoritative, wise, reliable and understanding. He accepts the patient as he is and wants to help him.

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It must be emphasized that many, and indeed the majority, of neuropsychiatric disabilities do not appear as a result of combat experiences but are detected by the hundreds of thousands at induction or in training areas in the continental limits. The bulk of these conditions are somewhat vaguely psychoneurotic, with rather indefinite psychosomatic symptoms or personality disorders often indicative of grave psychopathic traits, sometimes suspiciously akin to malingering. It is to be emphasized, too, that they are merely sharply focused in the regimented and disciplinary setting of military life. Usually, they existed prior to service, and the trail of inadequacy, selfish behavior, instability and lack of social responsiveness is plainly discernible.

WAR NEUROSES AND MORALE

Military neuropsychiatrists are concerned with the threat to morale which is inherent in each war neurosis. As these conditions appear in training areas and encampments they become focal points from which spread uncertainty and confusion. The assimilation of other men into a smoothly operating military machine is measurably retarded.

In combat, a physical wound, even though it be mortal, appreciably increases morale, a neuropsychiatric casualty diminishes morale and may even disrupt it. The wound of the body arouses the men who witness it, as does the suffering and the death of a fellow soldier, perhaps a friend. They become enraged, and under the twin lash of hatred and desire for revenge they become more effective fighting men.

A wound of the spirit or psyche—for instance, a convulsion, a paralysis without somatic injury, a startle reaction, or a panic of fear—is strange and even mysterious and frightening. Those who witness it are likely to be rendered less effective in combat.

Less dramatic but equally deteriorating to military morale was the occurrence of neuropsychiatric disabilities in training areas in the continental United States. In a training area there were thousands of men striving to achieve adjustment to separation from family and home, to the regimentation and the discipline of military life, to the fear and the hazard of future combat. These men were keenly conscious of those fellow soldiers who fell by the wayside, neuropsychiatrically disabled perhaps to be discharged from service. Their thinking was apt to be untutored and direct. In effect, they said "What manner of sickness is this? There are no broken bones. There is no fever. Nothing wrong can be found in the body."

If such thoughts entered the mind at a time when the soldier was

Psychiatry and War

No one should speak or write of war without condemning it. Of all the primitive vestiges in our civilization, war is the most archaic, wasteful, purposeless and devastating. Yet, the fact of war is inescapable. Since Christ taught his doctrine of love and good will, there have been less than 300 years of peace.

In the war, the psychiatric function of the physician is at least fourfold. First is the selection of men for the armed services who are not too vulnerable to neuropsychiatric disabilities.

The second function is to treat, as thoroughly as he can, the neuropsychiatric disabilities assigned to his care or, under combat conditions, the disabilities as they are brought to the dressing station or the military hospital.

The third function of physicians, particularly those who remain in civil life, is to raise the morale of the civilian population to the highest possible level, keep it there and be prepared to relieve and treat the anxiety and other reactions which may be caused by the tensions and the hazards of war.

Finally, after the war is over, psychiatry must be ready to play an important role in the reconstruction. One may anticipate a postwar situation of very wide distribution which may readily become chaotic—a dangerous restlessness or deadening apathy. Again, we are in the aftermath of postwar uncertainty, this time worsened by the fearful anticipation of another World War.

SELECTION

There can be no brief for the thesis that the neuropsychiatric rejection rate at induction is too high. In World War II, the neuropsychiatric rejection figures were 2 000 000 and, in addition, in one year alone 100 000 soldiers were discharged from the Army as psychoneurotic. The correct place for the psychiatrist is predominantly at the early stages of recruitment and training. Here the military mental hygiene units, in some measure at least, did splendid preventive work.

homesick, dissatisfied with military routine, and apprehensive the unknown future, then there was apt to be the tempting "Is this the way out of the service?" Good soldierly morale may be distorted and destroyed even while it is struggling to become an effective part of the personality.

By no means are all neuropsychiatric disabilities, and psychoses and organic neurologic diseases, disruptive of morale. Clinically, they are more concrete and more susceptible to explanation to the rank-and-file soldier. It is chiefly the vague psychosomatic complaints emerging from an indefinite background and psychopathic behavior (either condition strongly suggestive of malingering) that threaten the morale of soldiers who witness them.

One of the most important duties of the physician in the service, therefore, is to discover soldiers who have been inducted from the standpoint of neuropsychiatry, are too unable to survive the emotional impact of combat.

PROPHYLAXIS

There is a significant relationship between the incidence of neuroses and morale. Morale is intangible but very real. It or loses battles and wars. It has at least three layers.

1. A foundation of the material: healthy training-area conditions; sufficient good food; exercise, sports and diversions; prevention of boredom; *medical care which inspires confidence and makes for mental security*; a relationship between men and officers which favors talking over and obtaining counsel and help about home and military problems.

2. A layer of some degree of psychologic self-understanding, perhaps elementary, but at least sufficient to learn that fear is a natural and to-be-expected phenomenon and that energy should not be dissipated in the futile attempt to suppress fear but should be utilized in controlling behavior stimulated by fear and making such behavior effective in overcoming the enemy. Group and mass drilling and exercising are extremely valuable in inculcating feelings of security and confidence based on the common bond of group support and strength.

3. A layer of understanding and capable leadership from which for each soldier there should emerge a perspective of appreciation, faith and enthusiasm concerning the ideas and the practices for which the war is being fought and the value of preserving such ideas and practices. Admittedly, they are imperfect, as all human

beings are imperfect; nevertheless, it is fair to say that they are good and that the ideology and practice of the enemy are evil.

WAR NEUROSES AND THEIR TREATMENT

I doubt very much that the last war or any war of the future will bring forth a new psychotic or psychoneurotic entity. In spite of his cultural acquisitions, man still retains his elemental drives and, notably, his ego, self-protective and self-preservative demands remain dominant. These dynamic forces dictate more or less caution about putting life into jeopardy. Naturally, such demands and such behavior are irreconcilable with the demands of military requirements, discipline and ideals and the behavior upon which they insist—soldierly conduct, even in the face of danger to life.

Here is the basis of the underlying, "not-conscious" conflict which is present in every man who is within the zone of danger. Frequently, the balance is upset by some added stress: fatigue, exhaustion, deprivation, disease and oft-repeated emotional shocks or long-continued emotional drains. Then the clinical symptoms of one or another of the so-called war neuroses appear. They represent a pathologic compromise or the conversion of the conflict into physical signs and symptoms, sometimes psychosomatic in nature. Striking displays of anxiety are witnessed frequently. Deeper down in the personality, the failure to acquire a reasonable degree of emotional maturity in childhood may weight the balances of the conflict unfavorably.

The particular type of psychiatric war reaction is determined largely by the innate markings of the personality in which it occurs. Men, like animals, meet threats from reality with those weapons which are tried and trusted.

When survival is threatened, "poundage" animals like the elephant or the hippopotamus charge and attempt to annihilate reality; large cats like the tiger add agility and cunning to muscular power and the biting and tearing strength of fang and claw; the opossum feigns death; the myriads of insects rely on beautifully delicate protective camouflage and escape destruction by achieving inconspicuousness, merging imperceptibly into the trunk of a tree or of a blade of grass.

So, too, do human beings threatened with psychic disruption employ those psychologic weapons and devices which experience has demonstrated as readily available and naturally usable by their particular personalities. In a general way, the extrovert who is not deeply sensitive to the judgment of others tends unconsciously to

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employ simple stratagems which meet his needs, like the conversion of an emotional conflict into a physically disabling symptom, or perhaps (as in mania) by tremendous activity, verbal and motor, which serves to distract his attention from the emotional conflict. The more reflective introvert is more likely to use his power of thought, often accomplishing by intricate mechanisms significant repressions symbolically camouflaged in conscious thought and behavior.

Although there are numerous variations in the obvious clinical expressions of neuropsychiatric casualties, yet I believe that the pattern of the emotional conflict from which they emerge in war is universal. Briefly stated, it is an unconscious struggle between the respective behavior demands of the instinct of self-preservation—so dominant that it operates automatically in attempting to remove us from the path of danger to life and even strives to protect us from trivial discomforts—and a constellation of behavior patterns acquired in military service through training and discipline. These behavior reactions are numerous and complex, including such practical segments as the fear of being shot for cowardice and such idealistic concepts as the desire to fight and, if necessary, to die in order to preserve democracy. The demands of the opposing elements of the conflict are scarcely reconcilable, and it is not surprising that frequently a satisfactory compromise is not effected, and the conflict eventuates in a neuropsychiatric disability.

The conflict is operative not only in the sector of active combat but also in continental areas; indeed, I believe it operates even in those soldiers who develop neuropsychiatric disabilities only a few weeks or months after induction. In these men there is a weak and ineffectual struggle against urgent self-preservative demands. On the other hand, in those who have succumbed to so-called "combat fatigue" the conflict has been almost literally a death struggle. Many of these men could not be broken until great hardship, deprivation, exhaustion, tropical diseases and horrible emotional experiences were placed in the balances against them. Such men were as honorably wounded as though they had been struck by the fire of the enemy.

SHIFT IN FREQUENCY OF NEUROSES IN WAR

Perhaps in the amazing increase of machines of war in engineering precision and death-dealing power there is to be found part of the reason for the displacement in frequency which has occurred in two psychoneuroses.

In World War I the common neurosis was a relatively simple, somewhat naive conversion hysteria. In this neurosis the not-conscious emotional conflict between the self-preservative instinct and the protective behavior it activates and inculcated soldierly ideals and the behavior they demand was converted pathologically and expeditiously into incapacitating functional symptoms such as paralyses, aphonia, deafness, blindness, etc.

In World War II the preponderant psychoneuroses were anxiety reactions. Their clinical manifestations would seem to indicate that much deeper human emotional recesses had been penetrated. For instance, in so-called combat fatigue there may occur catastrophic nightmares in which terrifying battle experiences are relived with startling intensity and displays of naked fear. Or there may be startle reactions in which sudden accidental sounds, subconsciously reminiscent of battle sounds, call forth exhibitions of severe generalized trembling. Guilt feelings in which survivors are tortured by thoughts that, either through omission or commission, they have participated in the death of fellow soldiers, perhaps friends, were quite common. It seems unlikely that in a few decades the ethical stratum of man's superego should have progressed so rapidly. More likely is it that the calamitous and horrifying situations produced by modern war machines penetrate deeper and more acutely sensitive emotional levels.

It seems likely, too, that such desperate war situations frequently strip the veneer from the core of human emotions, whereas heretofore such exposures were relatively infrequent. Furthermore, behavior reactions to these situations, in which the emotional impact is brutal and often long continued, would seem to indicate that fear has been dissected into several layers. At least there are a number of somewhat distinctive behavior responses, varying from mild manifestations like restlessness and overprecision in the performance of purposeful motor movements to complete stupor.

It is possible that we have come perilously close to the saturation point of human emotions, and that while there may be no limit to the resources of engineering genius in perfecting machines of war, there is a limit to the capacity of human emotions to survive the psychic devastation and degradation which are produced.

Finally, the considerable amount of public education in psychiatry during the 25 years between the two wars may have something to do with the frequency decrease of conversion hysteria.

PROGNOSIS

Prognosis in military neuropsychiatry is conditioned by many factors, but only the more significant need be considered here.

1. The more satisfactory the previous personality and the sounder its integration, the better is the prognosis.

2. The shorter the time elapsing between the occurrence of the casualty and the initial psychiatric treatment, the better is the prognosis.

3. Within reasonable limits the closer to the battle line the neuropsychiatric patient is treated the better is the prognosis.

4. The more severe the extraneous factors, such as deprivation, exhaustion, and acute and severe emotional shocks, the better is the prognosis.

The relationship between these prognostic factors is close. Generally speaking, the men who are in the combat area tend to have relatively sounder personalities, since they have passed a double screening—at induction and at examination in the training area and other selective tests. If, as is often true, a heavy load of somatic and psychological stress was needed to accomplish the break, then this in itself is indicative of a stable and resistant personality which will rebound even under simple treatment. Finally, the chances of recovery are better if treatment is instituted promptly, before the symptoms have become fixed, and if early treatment is carried out in an area not too remote from the line of battle. Both the lapse of time and the increase of distance favor introspection and the fixation of symptoms.

TREATMENT

In neuropsychiatry, modern war has not devised totally new treatment formulae, but there have been skillful and useful adaptations of known treatments. Narcosis therapy, usually given for a week or ten days or more, has been shortened to one to three days, sometimes being followed by two weeks of subshock doses of insulin, resulting in an average weight gain of about 12 pounds. Grinker advocates narcosynthesis by the use of sodium pentothal intravenously, and the soldier, in a twilight zone of consciousness, through suggestion is made to relive his battle experiences. Audio-visual aids, particularly in the form of motion pictures (Howard Rome made a notable contribution in this field) and psychodrama, yielded promising therapeutic results.

Perhaps the most important development in psychologic treatment has been the application of group psychotherapy, which treats patients in groups. Undoubtedly, the exchange of experiences

and opinions between patients shortens the time required to bring the men face to face with the underlying motivations of their reactions. Furthermore, the group is familiarized with the operations of the usual mechanisms unconsciously employed as technics to produce the psychoneurotic escape. Fortunately, the improvement of group therapy has not been hampered by crystallizations of the theory or practice. Many innovations are being tried. Particularly important is the determination of the relatively greater or less integrity of recoveries on the basis of intellectual understanding and insight as contrasted with those in which there was an emotional 'breaking out' in the shape of emotional expression and portrayal of the harrowing combat experiences.

At the front, the combination of rest, good food, simple psychotherapy and brief narcosis by the administration of sodium amytal was the therapeutic choice. In the main, the chief reliance was on familiar and simple therapy—rest, plenty of good and hot food, removal of symptoms by suggestion, reassurance and desensitization of the ego from the insult of not having been able to continue in action, and the development of insight by explanation of the nature of the underlying conflict and the mechanisms involved in the production of the symptoms.

Neuropsychiatric treatment is highly significant in shaping the immediate and distant future of the disabled soldier. Neuropsychiatric casualties endanger the morale and the discipline of troops. The objective of treatment is to return to duty as many men as possible, with reclassifications if necessary, and, failing this objective, to send them back to civil life without neuropsychiatric handicaps incapacitating them for self-supporting work.

The medical officer must not expect elaborate histories, and in the field there will be available only a part of the information, at best. Reliable sources of information are the sick soldiers, officers, 'top sergeant' and 'buddies'.

The medical officer's most reliable diagnostic instrument is careful observation. However, a brief neurologic examination (temperature, pulse, pupillary responses, particularly to light, tendon reflexes, notably KJ, abdominal and cremasteric reflexes, Romberg's sign, posture, gait, etc.) may furnish valuable diagnostic and treatment leads of neurologic and psychiatric conditions—for instance, multiple sclerosis and paresis. The psychoses of senility are excluded by military age limits. However, there may be profound dementia due to alcoholism, epilepsy, brain tumors, presenile pathology, etc.

Determined in practice by military exigencies, the major portion

of the mental examination is dependent upon observation. By observing carefully much may be noted: general appearance; state of body; clothing; facial expression; attitude; motor activity and whether it is purposeful or aimless, related or unrelated to the environment; catalepsy; stupor; mannerisms; negativism; suggestibility; echopraxia, etc.

If accessible, the soldier should be discriminatingly questioned in order to confirm impressions of observational data or to determine the presence of decided mood alterations, overactivity or underactivity of thought and speech, illusions, hallucinations, obsessions, ideas of reference, delusions, orientation and memory, including amnesia, intelligence, etc.

An estimate of the emotional state and of consciousness is a necessary condition of diagnosis and treatment. In manic-depressive, the emotional display is likely to be fairly clear-cut, depressed, often with self-blame and suicidal trends or exhilarated with quick shifts to other emotional reactions; in schizophrenia, the emotional expressions tend to be inadequate to the verbally expressed thinking or even at odds with it.

Once conversion hysteria is well developed, there is less emotional disturbance than would be anticipated in view of the dramatic character of the symptoms; in the other neuroses there is overconcern, tension and anxiety, fear, panic, etc.

In a general way, and in the absence of epilepsy, paresis, deep depression, or grave neurologic or toxic pathology, disturbances of consciousness are prognostically good omens. In the recoverable war neuroses, particularly those occurring in combat, there is often an initial befogged state, perhaps immediately determined by concussion, fatigue, or food deprivation. Even more favorable are acute psychoses with delirium dependent upon physical exhaustion. They respond readily to simple treatment such as hot food, increase of fluid intake, rest and explanation.

Malingering is a deliberately planned attempt to evade military duty or secure a discharge by feigning illness. It is not easy to detect, yet usually the simulation is overdone or incomplete, with absence of fundamental signs and symptoms. Various techniques, like warming a clinical thermometer, taking purgative medicines, or self-infliction of wounds, may be employed. Treatment never should omit giving the malingerer a "chance." Not infrequently, detection, confession, and frank, explanatory discussion will convert him into a good soldier.

Often military misbehavior is incipient evidence of psychosis, psychoneurosis, or even organic neurologic disease. Successful treat-

ment depends upon uncovering the underlying condition and dealing with it. It is important to determine whether the behavior is consistently below army standards (indicating mental defect or constitutional psychopathic inferiority); whether there was a rather abrupt change in the behavior pattern (indicating manic-depressive, schizophrenia, or paresis); or whether there was a gradual alteration (indicating alcoholism, anxiety neurosis). Was the conduct marked by overaction, as in the boisterousness, aggressiveness and violence of mania, paresis, or schizophrenic excitement, or (as more often in schizophrenia) by underreaction, as in passive withdrawal from companionship and activities? The psychologic setting in which the misbehavior occurred may at once suggest corrective treatment. For instance, is the soldier homesick? Is he worried about bad news from his family? Perhaps he has had a gossipy letter hinting that his wife or his "girl" is interested in another man.

WAR AND THE CIVILIAN

Should we ever have to face the calamity of another war, the work of the psychiatrist will be as important for the civilian as for the soldier, perhaps more so. It will be a war of atom bombs and, even worse, a total war of mass destruction and death, with which our civilians have not had actual experience. Not only will it be necessary to be adequately prepared to deal with injury and disease in the civilian population, but psychiatric experience in preventing mass panic and mob hysteria will be constantly and urgently needed. The effect on the civilian will constitute the more serious problem, since he will not have in the same measure the security which the soldier derives from military discipline and morale. Some of the lessons learned in the bombing in Great Britain have value.

1. Civilians who had definite duties—for instance, fire brigades or enemy plane-spotting—showed an amazingly low incidence of psychiatric disorders.

2. Failure to provide reasonably adequate shelter for those "bombed out" of their homes had a deleterious effect.

3. Safety in shelters, as secure and comfortable as possible, decreased the likelihood of psychiatric breaks and panics.

4. Shortage of sleep had a very deleterious effect on working capacity and was productive of serious nervous irritability.

5. With regard to industrial production, efforts to stimulate workers to feverish activity in the supposed interest of increased output are foolish. Overlong hours and continuous work without intervals for rest are to be avoided. Sunday rest and holidays should be given,

and boredom should be alleviated by distractions such as music. In arranging work shifts, experience of World War I indicated that alternate weeks proved to be better than alternate fortnights for night work. A two shift night work system has been considered advisable, and night work for women inadvisable. It is debatable whether a curtailed lunch hour permits of the production of useful work during the time saved. When smoking is forbidden at the work benches it would seem that a great deal of time is wasted by the smokers in lavatories.

6 Severe psychiatric shock should be given prompt, short time treatment in hospitals and dispensaries. Acute conditions often responded well to rest and brief narcosis.

7 Separation of children from their mothers was often inevitable but it did lower the morale of mothers and families and increased juvenile delinquency.

8 Great disruption in the routine of the lives of old people increased the incidence of psychotic reactions.

9 Honest but skillful propaganda concerning military achievements and objectives and ideals to be attained was significantly helpful.

ROLE OF PSYCHIATRY IN RECONSTRUCTION

Will the vast experience of neuropsychiatry in this global war be applied intelligently in the postwar military framework? Having failed in our preparation twice within 25 years and having paid a heavy penalty for our failures it is inconceivable that we should again be remiss in filling the lamps of military psychiatry with the oil of organization and personnel. No matter how small the peace time army may be there must be maintained in the office of the Surgeon General at least a skeleton of neuropsychiatric organization capable of rapid expansion and in close touch with qualified psychiatric medical personnel available for service should the need arise. Even such a modest provision would be in jeopardy unless the Surgeon General of each service—Army, Navy, Air Forces—is made a member of the General Staff. It is incomprehensible that the Surgeon General who presides over the medical health and care of more than 8 000 000 men, should be under the line, which if it chooses, may override his judgment in medical matters.

Many generations to come will have to pay for the huge neuropsychiatric morbidity rate of the late war, if not in blood, certainly in tears and sweat. Surely prevention will have important consideration in the military psychiatry of the future.

With the exception of the psychoses in which the results were excellent (less than 1 psychotic per 1,000 in the Navy and not many more in the Army) neuropsychiatric induction was not successful. Even the small amount of screening it accomplished is remarkable in view of the dearth of psychiatrists and the pressure of time permitting at best five minutes to discover disabilities which rarely have external markings, as do physical handicaps like hernia or heart disease. We would have been better prepared if there had been on record a survey of the national health, and if the war service act had been less selective and had mobilized every citizen from 18 to 70, each one taking his or her proper place in the total war effort. To make this workable, there would be required an organization which could assign rapidly and with reasonable accuracy each man and woman to the work he or she could best perform.

If prevention is to be effective it must deal with morale. An army may march to its objective on its belly, but it takes the objective by its morale. Morale is much more than the sum of a man's chemistry or organs or mental functions. Perhaps it is faith and courage, devotion to the nation, desire to live for it and, should the need arise, die for it. Morale does not arise spontaneously. It must be produced, honestly but deliberately. Good morale has its foundations in simple things: appetizing, well cooked food, satisfactory living conditions, neat, well fitting uniforms and shoes, interesting diversions and sports. Medical care should be of such quality that the soldiers have complete confidence in the medical officers, not only for a current illness, but also for the sickness or emergency of the future in encampment or battle.

Proper relationship with officers, commissioned and noncommissioned, is morale making. *It should be of such a character that the soldier will not hesitate to talk over military and home problems and will find wise counsel.*

Mass exercise and drills have morale making value, and from them are derived the security and the confidence that come from the strength and the bond of numbers.

Conditioning men for campaign and battle must envisage something more than mere familiarizing with troop movements and hardening to the noises and the sights of war. Equally important is psychologic self understanding. No soldier should be permitted to enter battle with the belief that in some magic way he will suddenly be unafraid. Certainly he will experience fear—the natural protest of his strongest instinct and his most ancient biologic function—self preservation. Neither should he be taught that fear can be

suppressed. It can no more be suppressed than can the beat of the heart be stilled. The soldier should be taught how to mobilize his resources, so that he may learn to control his behavior when he is afraid. If this lesson is taught correctly and learned thoroughly, then fear becomes an effective fighting ally, motivating behavior that not only produces satisfactory military action but also gives the soldier the best chance of escaping with his life.

Much has been written of the ideologies and idealisms of the war and the necessity of giving soldiers satisfactory answers to the question, "Why are we fighting this war?" My contact with soldiers in and from various combat areas would lead me to think that, almost irrespective of educational and cultural levels, before any serious attention will be given to ideologic and idealistic considerations, we must satisfy the urgent need for faith in two things: in the personality and the quality of his leadership and in the support of civilians at home. Ideology must rest on fact, not theory.

EFFECT UPON CIVILIAN PSYCHIATRY

For many years we have been talking about the shortage of psychiatrists. One effect of this war upon civilian psychiatry will be that we shall be compelled to do something about it. The Army and the Navy have given many medical officers indoctrination courses in psychiatry. Many of the Army medical officers and at least one half from the Navy continued the psychiatric education which led to the practice of psychiatry.

The law of supply and demand is inexorable. The postwar patient psychiatric demand has been so great that it cannot be supplied within the strict confines of psychiatry, and general medical men should be given every opportunity to acquire a certain amount of basic psychiatric understanding. This is particularly true of those physicians who in the war had general medical and surgical duties and were confronted frequently with situations in which there were important psychiatric complications and, because of lack of psychiatric knowledge, were nonplused and ineffective. The effect of these several conditions has been to exert frontal psychiatric and lateral nonpsychiatric pressure upon medical education, increasing the importance of psychiatric teaching and broadening its scope so that the psychosomatic and other relationships between psychiatry and medicine and surgery, in all their subdivisions, will be taught adequately.

It seems probable that military psychiatric experiences, particularly as related to combat, has produced a leavening of therapy, based on the necessity of accomplishing restitution in the shortest

possible time without too close adherence to any particular school of thought or technic. We are witnessing a three pronged attack upon therapeutic technics that are highly individualistic and very time consuming. One prong of the attack will come from the great number of patients needing treatment, a second from the shortage of psychiatrists and the need of their having as wide a patient coverage as possible, the third from the relative success obtained in war from energetic and brief therapies. In the psychoanalytic area—the citadel of individual treatment, of necessity requiring much time—some psychoanalysts have responded with short time analyses and other short cuts.

Finally, there has been a tendency to deal therapeutically more emphatically and intensively with those emotional experiences that are directly related to the symptomatology of the psychoneuroses. Naturally, the past of the patient, personally and even phylogenetically, should not be ruled out of consideration, but its use by the patient to continue a situation which precludes participation in everyday realities and activities should be combated energetically. The inner upheaval due to the dynamic experiences which shaped the neurosis must be experienced by the patient, and the very fact that they are recent in the psyche and more readily accessible to the therapy would give them a larger and firmer leverage with which to shift the psychoneurosis into more favorable territory.

EFFECT UPON CIVILIZATION

"Those who will not learn the lessons of history are condemned to repeat them." It is a sad commentary upon the intelligence of our species that in all ages human beings have consistently and flagrantly disregarded the lessons of history. If we do not heed history this time, it is doubtful that we shall be given again the opportunity of repenting and repeating its lessons. We should have learned now, if never before, that machinery, particularly machinery of war, is possessed of certain Frankensteinish qualities. Machines of war have now reached such a degree of efficiency that should they turn and rend us again our civilization and culture will be so smashed that never again will it be able to function.

In this connection the neuropsychiatry of the war has been truly impressive. Apparently, there is danger of producing a devitalization and bankruptcy of human emotions so that they will respond strongly only to stimuli that are material, with a consequent weak and enervated reaction to the stimuli of much needed philosophic and spiritual checks and balances. No matter to what technical heights a civilization and culture may soar, no matter how com-

portable and even luxurious the products and the gadgets of machines may make everyday living, it is still true that a civilization devoid of nonmaterial philosophies and spiritual assets and without benefit of their influences is doomed to fall and to perish miserably.

Certain neuropsychiatric experiences of the past war have been so significant that there can be only one inference from them: we must learn at once a sounder evaluation of democratic civilization and put it into practice before it is too late. A considerable segment of the young men discharged from the Army after a short trial of service and a larger segment rejected at induction are being described as being temperamentally unsuited for military service. They often showed various psychosomatic symptoms or displayed psychopathic traits, but the basic reason why they could not be accepted or had to be discharged was because they could not make the adjustment to military life. The records show, too, that the majority had not adjusted satisfactorily in civilian life.

One makes no progress at all by precipitating arguments as to whether these men were really sick. Of course they were sick, even if there happened to be a considerable element of malingering in the situation. Much more important is it to know what the sickness expressed: its significance for democracy and if possible its origin.

It is the significant task of postwar psychiatry to scrutinize this large group carefully and to view it in all its threatening social perspectives. This should lead to the development of more satisfactory formulas and technics of childhood training, with emphasis upon inculcating in the young and plastic personality a better balance between so-called personal rights and social obligations. With this definition, understanding and practical application of duties due to society, near and remote, our civilization and culture will be on firmer ground, democracy will be more secure, and the catastrophes of war will be more likely to be averted.

It is interesting to attempt to list the benefits accruing to Psychiatry and Medicine as a result of the psychiatric experiences of World War II.

- 1 Even though psychiatrists before the war realized full well the serious dearth of qualified psychiatrists yet it needed the war to bring the shortage to the attention of physicians and the public. There are less than 3,500 qualified psychiatrists available, while not less than 20,000 are required to meet the minimal psychiatric and mental hygiene needs of the nation. More than 60 per cent of the sick veterans fall in the nervous and mental category. Many training programs have been instituted in the effort to bridge this gap.

2. The war demonstrated an equally serious shortage and need in the psychiatric supporting and ancillary services—psychologists, psychiatric nurses and attendants, psychiatric social workers.

3. The benefits of the close association between workers in all fields of medicine and surgery and psychiatrists in the field, in Army and Navy hospitals, and perhaps notably on hospital ships, are already being experienced. The need for psychiatry and the service it can render are now widely recognized in medical circles, and many physicians are taking indoctrination courses in psychiatry.

4. In view of the magnitude of the psychiatric war and postwar problem attention has become sharply focused on prevention and both the composition (psychiatrist, psychologist, psychiatric social worker) and the technics of the military hygiene unit are being carried into civilian practice.

5. Both the size of the military psychiatric problem and the urgent necessity for prompt restitution to satisfactory functioning produced in the psychiatrists in the service a healthy leavening which they brought back to civilian practice and are now disseminating wisely. Adherence to any particular school of psychiatric thought is far less important than the prompt utilization of any feasible technics that will effectively remove the symptoms and restore the patient to functioning capacity in the shortest possible time. Uncovering technics which may expose to consciousness the emotional conflict material, like the amytal and sodium pentathol interviews, hypnosis, etc., are being used freely.

6. During the war, it was found that the nomenclature and the classification so long in use in many places was not satisfactory—not expressive enough diagnostically, etiologically or prognostically and not therapeutically stimulating. The Army and Navy nomenclatures are already in use in certain areas of psychiatry and undoubtedly, there will be considerable modification of the extant classification.

The Nurse and the Psychiatric Patient

There are two kinds of good nurses. The first group includes those nurses who are expert technicians and understand thoroughly the physical needs of human illness. They minister to the sick conscientiously, deftly—and somewhat impersonally. In the second group are the nurses who have a reasonable degree of technical skill and information and, in addition, have the capacity of understanding the sick person, not merely as a collection of clinical symptoms but as an individual human being. There are too few nurses in the second group. They are more precious than rubies.

In the field of general medical and surgical nursing and in their specialties, the real understanding of sick people is an important asset; in psychiatry it is an imperative requisite.

PSYCHIATRIC LESSONS FOR NONPSYCHIATRIC NURSES

For those nurses whose nursing is outside the field of nervous and mental illness, psychiatry has very significant lessons. If these lessons are received, appreciated and put into practice, they will provide a foundation upon which may be erected a more serviceable and more interesting nursing career.

The lessons of psychiatry may be stated briefly, not as a theory but as authentic principles which are now commonly accepted. In health and in sickness, each human being is a unified organism consisting of interlaced physical and psychological functions which never act separately. Therefore, in sickness not even the simplest physical reaction (perhaps a slight elevation of temperature) can occur without at once causing reverberations in the emotional life of the individual. Contrariwise, even the mildest emotional reaction, such as a mere feeling of mild satisfaction or of trifling annoyance, immediately has repercussions in every tissue and cell of the body.

For the nurse the conclusion is obvious. In every illness, no matter how trivial, in addition to the physical symptoms, perhaps, the

"cold," the slight fever, the headache or what not, there is inevitably an 'X' quantity, which represents the reaction of the personality of the patient to the illness. Each one of us is different from the other—individual personality, bundles of dislikes, enthusiasms and prejudices, fears, loves and hates, and many other things. Therefore, the "X" quantity is distinctively personal and, in sickness of the body, it, too, is sick and must be nursed along with the fever and the headache. The nurse should not nurse exclusively pneumonias and laparotomies, but more particularly she should nurse the John Burds and the Lucy Stones who have the pneumonias, the surgical abdomens, the fractures, and the many morbidities to which human flesh is heir. If all nurses would activate these simple facts into daily practice, they would find increasing satisfaction in their work and, conceivably, often the duration of illness would be shortened.

PHYSICAL TECHNICS IN PSYCHIATRIC NURSING

It must not be inferred that psychiatric nurses do not need technical information and dexterity. Very often in many respects psychiatry is internal medicine or surgery or any of their subdivisions. Therefore, the psychiatric nurse must be prepared to do anything required, from preparing the patient for a surgical operation, to giving a hypodermic injection, or rubbing an aching back. Indeed, in psychiatry there are specialized procedures like giving packs of various kinds, the continuous bath, narcosis therapy, and more recently the highly differentiated and exact nursing technics of the drastic therapies—insulin shock, electroshock and other convulsive therapies, and the brain operation of prefrontal leukotomy. Some of these procedures, for instance, insulin shock therapy, have developed so rapidly that a nurse may now have a satisfactory career as an insulin shock unit nurse.

PSYCHIATRIC NURSING EMERGENCIES

Psychiatry is the field of daily emergencies. The nurse must be ever vigilant and prepared to act promptly. The emergencies are many and varied. Some types of psychotic behavior call for tactful handling, others for immediate and decisive first aid. Patients may cut off their hair or decorate themselves in weird fashion. Mischievously, they may hide from the nurse or attempt to run away. They may pilfer from other patients or conceal their clothing and other articles, insisting that the nurse or the patients have stolen them. They may destroy or deface property. They may swallow all

manner of things or insert foreign bodies into the bodily orifices. They may lacerate, abrade and bruise themselves and others. They may feign sickness, perhaps, doubling up and crying out with violent pain and then, after they have created the commotion they had planned, laughing uproariously. No matter how often the nurse has responded to the cry of "Wolf! Wolf!" yet she never dares assume that it is another false alarm. One day there may be an acute appendix, a gallstone colic, or some other crisis. Patients may attempt suicide or attack other patients, even with homicidal intent. Sometimes an emergency is predictable; sometimes it could not have been foreseen.

ETHICS, CARE AND PROTECTION

The ethical responsibility of the nurse is very grave. She must subscribe literally to the maxim and constantly practice it: "Do unto others as you would have them do unto you." And it is well to remember that in the maxim there is included the negative precept: "Do *not* do unto others as you would *not* have them do unto you."

Many mentally sick patients are like sick children. Often they are not able to tell what is wrong, much less complain if they are ill-treated. Nevertheless, often patients may be irritating almost beyond the point of human endurance and exasperating enough to try the patience of a saint. Nonetheless, never is it permissible for the nurse to lower her ideals.

If a nurse finds herself more or less constantly irritated or angry with a patient, it is time for her to take stock of herself. Perhaps she is overtired. It is more likely that certain things in the behavior of the patient touch on unconscious areas in her own personality, so that there is an inner fear that one day she might behave likewise. Or the patient arouses personal dislike and bias in the nurse. Nurses and doctors have their dislikes and mild prejudices like other human beings, but they must realize that they have them and surmount them in dealing with patients.

Frequently, the daily tasks and chores of a psychiatric nurse are far from pleasant; but, no matter how menial they may have to be from time to time, they never can be degrading. Everything that is done for a mental patient is dignified by the noble purpose which it serves. Many psychotic patients not only need protection but also must be kept comfortable and clean. Particularly is this true in conditions of deterioration or deficit—senile, dementia, paresis, epilepsy, mental defects, etc.

For instance, the nurse must be sure that the senile patient is protected against cold and heat, against burns from hot surfaces, has enough of the right kind of food, does not fall and perhaps sustain severe fractures. The bones of paretic and senile patients are likely to be fragile and easily broken. In convulsions epileptic patients must be guarded against biting the tongue and otherwise injuring themselves. The mental defective must be protected against being made the passive victim of perverted sexual practices or some times, too, he may be sexually aggressive. If the mental defect is of a low grade, the defective may expose himself to dangerous and death dealing hazards.

Many patients are not able to attend to the most elementary bodily needs. They have to be cleansed and cared for as though they were helpless babies.

Temporarily, the same protection and care is required by patients who are more recoverable. For instance, the manic depressive patient in the manic phase may be "too busy" to eat properly or to attend to personal needs, in the depressive phase there is often the lack of the desire and initiative to eat or "do anything". The schizophrenic is often too engulfed in fantasy to bother about anything or want to be bothered. For delirious patients constant care and protection may mean the difference between life or death.

Suicide and attempts to accomplish it have a much wider distribution than is usually realized. This symptom appears not only in depressed patients but also in schizophrenia, particularly in the panics, in delirious reactions, in senile psychoses and, indeed in practically every organic, toxic and functional reaction. While some times "accidental," as for instance when a delirious patient hurls himself out a window, more often suicide is a less accidental, somewhat planned annihilation of reality. Suicide is the abnegation of the strong and dominant self or ego instinct. It is more than that. It is a retaliation upon the world for having been relegated to an insignificant role during life, a childish exhibitionistic revenge for real or fancied slights, insults or deprivations. In psychoses the surface reasons for the suicide, for instance self blame for sinfulness or strong feelings of personal unworthiness are not the real motivations. These are deeply embedded in the "not-conscious" areas of the mental life and are not accessible to the awareness of the patient. The sudden lifting of melancholy in a profoundly depressed patient and the appearance of a certain amount of co-operation and decision in a patient who had been unco-operative and indecisive should make the nurse doubly vigilant. Not infrequently I have observed such a change as a prelude to a suicidal attempt.

In psychiatric nursing, while the nurse must be ever watchful to prevent suicide, yet the watchfulness should be tactful and not clumsily obvious. Constant, open supervision keeps the thought of suicide in the forefront of the patient's mind. On the other hand, the nurse need not be afraid to discuss the suicidal thoughts with the patient, particularly if the patient takes the initiative. An intelligent airing of the situation is helpful in desensitizing the patient to the idea of self destruction.

PSYCHOLOGIC FACTORS IN PSYCHIATRIC NURSING

In a large segment of psychiatric nursing much of the work of the nurse is psychologic. This does not mean at all that the nurse is to be a Pollyanna, determinedly cheerful and optimistic. Such an attitude is worse than useless.

In order to practice psychological nursing, the nurse must understand at least the elementary psychopathic processes and mechanisms which are the roots of the symptoms. Many of them have been explained in this book. Only from such understanding of the origin and the purpose of the symptoms will there be gained the intelligence and the wit to combat them. Then does the nurse truly become the aide and the agent of the psychiatrist. Sensible psychiatrists are only too glad to have nurses work *with* them rather than for them.

It is necessary for the nurse to understand what the psychosis or psychoneurosis accomplishes for patients and what protective purpose is served by the particular symptoms of each patient. In this respect a dynamic and therapeutically fruitful perspective comes from the realization that, by and large, mental disease and the neuroses represent attempts to evade and escape the realities of everyday life because of inner inadequacies, in a considerable measure determined by irksome, difficult and sometimes brutal conditions in the environment.

The conception that unconsciously the patient is seeking to escape from self and from his realities is authentic and provides a good working basis for effective psychological nursing. For instance, psychologically, schizophrenia represents a withdrawal from the unpleasantness, the competition, the rebuffs and the injuries of daily living. Each symptom of schizophrenia announces and serves the objective of withdrawing and escaping. Perhaps this is classically illustrated by a katatonic stupor, in which the patient like an opossum "plays dead," is often unresponsive and mute, has to be fed artificially and gives no evidence of pain even when stuck with a sharp needle.

In the psychoneuroses which, strictly speaking, are not mental diseases, there is abundant clinical testimony in the symptoms that the psychological purpose of the neurosis is to save the patient from the hard impacts of reality. Examples are the young nurse, who when confronted with the task of removing a bloody sponge from the operating room floor suddenly develops a paralysis of the right arm, the "shell-shocked" soldier who became blind and amnesic after he had witnessed the head of his "buddy" blown off in action by an enemy shell, the neurasthenic woman who has a train of gastro-intestinal symptoms, dizziness, nausea and vomiting, because, although she is not consciously aware of it, yet she cannot any longer face sexual life with a dependent or perhaps alcoholic husband.

In chronic alcoholism or drug addiction (in which conditions the nurse must be exceedingly careful that the patients do not secure alcohol or drugs surreptitiously), the individual has resorted to an unreality produced by alcohol and drugs, since they cannot face life at the level of sober, unnarcotized, mature, adult responsibility. Unconsciously, they seek to blur rosily the rigid and unrelenting outlines of reality and eventually to annihilate reality altogether.

Even in the psychoses which are definitely organic, for instance, paresis, while it is true that the parietic mental disease is determined by the invasion of the brain tissues by the spirochete of syphilis, yet many of the symptoms represent compensations for unsatisfactory realities. For instance, delusions of grandeur—"the strongest man in the world," "the richest man in the world," "a thousand wives," "thousands of children," "emperor of the planets"—seemingly represent compensations for actual lowness, belittlements and inadequacies.

These few statements define the psychologic therapeutic work of the nurse. The patient is seeking to escape from life and attain the Nirvana of the unreal and the fantastic. The nurse strives to hold back the temptations and lure of unreality and fantasy and put forth the claims of everyday life. Could there be a finer purpose than this?

Why does the patient retreat from life as it is with its victories and defeats, its bounties and deprivations, human love with the sweet and the bitter? The desire to escape is the result of the reaction between the patient and his or her environment. The nurse must understand and evaluate the environment which the patient has abandoned, and whenever it is possible to do so honestly, she must convince the patient that insofar as it is right, reasonable and feasible, there will be a correction of obviously unfair and too rigid environmental conditions.

How should the nurse go about convincing the patient that, all in all, reality is more attractive than unreality, sanity better than insanity? It cannot be done abruptly and aggressively. It is a painstaking, gradual, tactful and often devious work, and there are many 'detours'. Once the nurse has established good rapport with the patient, half the battle is won. Then the patient begins to realize that the nurse is not merely someone who tries to make him or her comfortable but is a human being, a friend who is to be trusted—a wise friend, not filled with sentimental sympathy but with common sense, intelligence and humanity. Then the patient begins to trust the nurse, begins to give her confidences, finally takes her completely into her confidence. Psychologically, there has developed a relationship between two human beings, one needing help, the other able and willing to give it.

Furthermore, the nurse must remember that if she is studying the patient, so too is she being studied by the patient. Therefore, not only by precept, but also by example, the nurse skilled in the knowledge of human behavior demonstrates in her own everyday life that living is worth while.

If I should continue this discussion, I would be doing the unnecessary. The nurse who has the potentiality of becoming a good psychiatric nurse will understand the importance of winning the patient back to the realities and the responsibilities of life. Her intelligence, understanding and ideals will be the sources from which she will draw effective ways and means.

Finally, the nurse should be the buffer between the patient and his family and friends. They are apt to err in one of two ways: undue realism or oversentimentality. Translated into attitudes, the first group want the nurse to be 'tough' with the patient—"make him (or her) stop this nonsense"; the second, or oversentimental, group want the patient shielded from the slightest ill wind of environmental circumstance. Either method tends to immerse the patient more deeply in the illness. From the store of her understanding and experience, the nurse manages the situation tactfully and finally inculcates into the relatives and friends a more sensible and constructive policy.

SUGGESTIONS

While minute directions are not desirable in psychological nursing and may hamper rather than help the intelligent nurse, a few suggestions may not be amiss.

Depression. It is to be repeated that with depressed patients, it is wise to avoid attitudes of determined cheerfulness and optimism. There is reason to believe that depression is intensified by constant contrast with displays of "happiness." On the other hand, the nurse should not participate in the melancholy and apprehension of the patient. Natural behavior and some degree of understanding of the depressed spirits of the patient, together with an effort to produce motor activity by occupation or games, represents a helpful attitude.

Food Refusal. Food may be refused for various reasons—anorexia in many functional conditions; in depressions because there is loss of desire or perhaps the patient feels too "sinful" to eat; it may represent an attempt at suicide; in paranoid schizophrenia and other conditions it may be because the patient fears there is "poison" in the food.

The attitude of the nurse should convey her belief that the abstinence from food is merely a temporary state of affairs. From time to time food should be served to the patient, even though it may be left untouched. On the other hand, the nurse must remember that there are patients who, in their effort to avoid tube feeding attempt to "get by" by taking a few morsels of food. It is better to resort to artificial feeding, with the approval of the physician, than to permit the nutrition to drop to a dangerously low level.

Insomnia. There is no condition in the territory of psychiatry—organic, toxic, or functional—which may not have insomnia as a symptom. The nurse can assist the physician in keeping hypnotic medication at a low level by tiring the patient by a reasonable amount of exercise, and by an air of quiet confidence that sooner or later normal sleep will return. Particularly in psychoneurotic patients it is important to combat ideas concerning "the dangerous and terrible effects of insomnia." The patient should be taught that motor quietude and relaxation is a good, partial substitute for sleep and it, together with a more casual attitude toward sleep, favors the likelihood of sleep.

Delusions. It is not a good plan actively to combat by arguments the delusional beliefs of patients. Delusions are not founded in logic and they will not be dispelled by logic. On the other hand, it is equally fallacious to pretend to agree with the patient's delusions. A willingness to listen attentively and patiently and then some remark like, "I know it seems very real to you, but I doubt if you will continue to feel that way about it" express a good nursing attitude.

Motor Inactivity and Overactivity. Conditions of motor inactivity are apt to be indicative of retardation and depression. They should call forth efforts to produce motor energizing in severe cases perhaps only a little walk or merely passive motion, in less severe cases, occupational therapy, becoming more intricate as improvement occurs.

In conditions of motor overactivity it is often possible to guide the wildly expended energy into safer and more useful directions instead of allowing it to remain at a level of destructiveness.

Stupor In psychiatric stupors it never should be assumed that the patient is totally unconscious of the surroundings, even though there is no discernible reaction to sensory stimuli. After emerging from stupors patients frequently give a fairly clear account of the happenings in the environment during the stupor. Therefore, during the stupor as at other times, the behavior and the remarks of the nurse never should be such that they might disturb or frighten the patient.

Resistance Resistance on the part of the patient, even active, aggressive resistance and violence, is usually made worse by too energetic physical methods of control. Only that amount of physical force necessary to protect the patient and those about him is permissible.

Notes The nurse should make careful and reasonably comprehensive clinical nursing notes. They should contain a minimum of inferences and conclusions, such as "depressed," "elated," "suicidal," "hallucinatory," "delusional," etc., and a maximum of descriptions of the words and the behavior of the patient which lead the nurse to think that such terms would be accurate. Such notes are quite helpful to the physician and are very useful in court if the nurse should be called as a witness. In court the nurse will not be permitted to give opinions and conclusions unless sufficient foundation has been laid for the opinion or conclusion by her testimony as to what she heard the patient say and saw him do. Whatever someone else may have told the nurse about the patient is so called "hearsay" and is not admissible as evidence.

No matter how utterly insane and devoid of significance they may appear to be, yet each remark and act of the patient, even the wild tossing about and incoherent babbling of a delirium, is fraught with meaning. As the nurse gains experience in psychological nursing she will learn to penetrate into some of the hidden meanings of the patients' speech and behavior, she will become increasingly skilled in understanding and helping her patients, and new vistas of interest and opportunity will be unfolded for her.

Glossary

- Affect.** Often regarded as synonymous with emotion. It is probably more inclusive, comprising not only the emotions, but all subjective feeling tones.
- Ambivalence.** A more-or-less equal weighing of thought, emotion and action, so that relative inaction results. Ambivalency is probably a factor in katatonic phenomena. Love and hate are closely related, and ambivalent reactions are common in the love life and are the source of serious emotional conflicts.
- Amnesia.** A memory gap involving usually a limited time span. In functional amnesias, the remembrance of the happenings during a certain time period are blotted from memory because they cannot be faced in memory without too great distress and anxiety.
- Anxiety.** A persistent feeling of apprehension and dread arising from threats of which the person is unaware, accompanied by a painful uneasiness of mind and vague anticipatory ideas of harm or disaster.
- Argyll Robertson Pupils.** Pupils reacting to accommodation but not to light.
- Autistic.** Referring to self. Often used to describe the fantasy love life of psychotic patients, notably in schizophrenia. The patient may conduct in fantasy an elaborate love affair with some public personage, perhaps a cinema star.
- Automatic Obedience.** A symptom sometimes observed in stupor in which the patient is unable to inhibit compliance with a command, even though such compliance may be fraught with personal danger, as, for instance, the command to protrude the tongue so that a needle may be thrust through it.
- Benign.** Recoverable and relatively favorable psychotic reactions.
- Blocking.** Interference with the trend of thought and speech by the intrusion of insistent psychotic symptoms, often hallucinosis.
- Catalepsy.** A muscle symptom probably indicative of suggestibility in which the limbs may be placed in awkward positions which may be maintained by the patient for long periods of time.
- Cataplexy.** The sudden loss of power and tone of all skeletal muscles under the influence of emotional excitement, usually laughter.
- Cerea flexibilitas.** An extreme degree of catalepsy in which the limbs of the cataleptic patient feel to the examiner as though they were made of wax.
- Circumstantiality.** A mental symptom marked by conversation in which the goal-idea is reached only after relating many irrelevant details.
- Compensation.** Satisfaction for dissatisfactions. Often applied to the efforts made to escape from

or minimize inferiority reactions. Such compensatory efforts are sometimes conscious but more usually not conscious. They may be wise and constructive or unwise, destructive or even psychotic, as perhaps in the manic phase of manic depressive psychoses.

Complex A designation sometimes applied to emotionally strongly conditioned areas in the psychic life of which the individual is usually not conscious, but which determine strong tendencies and drives in the direction of certain kinds of behavior.

Compulsion A compelling impulse to perform some act contrary to one's better judgment or will undertaken in an attempt to allay anxiety.

Conflict The clash of irreconcilable trends, drives and in general motivations of human behavior.

Confabulation A symptom of various psychoses wherein the patient, upon suggestion, recites imaginary experiences as true, by way of a compensatory substitution for loss of memory, to fill a memory gap.

Delirium A syndrome of symptoms very commonly encountered in toxic psychotic reactions. It varies in degree. There is disturbance of consciousness varying in depth and frequently there are accompaniments of increased motor activity and hallucinosis.

Delusion A false belief concerning which the individual holding it is unable to accept proof such as would be more or less

commonly accepted. Many mistaken opinions are closely related to delusions in their structure and origin but are saved from being labeled delusions, either because they are trivial or because they are held simultaneously by great numbers of people.

Dementia A permanent loss of one or more of the mental functions. It occurs in the organic psychoses, like senile psychosis or paresis.

Depersonalization Loss of the sense of personal identity. A feeling of being someone or something else.

Desensitization The allaying of anxiety, the easing of rigidity and the lessening of inhibitions by good rapport, sometimes aided by pharmacologic techniques, so that the patient may view the disturbing material in a less personal, more understanding and therapeutically constructive manner.

Disorientation Disturbance or loss of the capacity to orient or place self in relation to person, time and place.

Displacement The psychological process by which material which is offensive to the larger segment of the personality and cannot be consciously surveyed by it without very disturbing emotional reactions is removed to not conscious areas. (See repression.)

Dissociation A disorder of thinking in which one or several groups of ideas become split off from the main body of the personality and are not accessible to the conscious mind. Disparity

between the intellectual and the emotional life, as in dementia praecox. Dissociation may be partial, as in hysteric fugue, or complete, as in double personality.

Distractibility. Usually applied to thought. Indicates instability of thought, difficulty of reaching the goal idea and lowering of inhibition against the turning of thought in this direction and that by external (environmental) and internal (thought association) stimuli.

Drastic. Severe. Applied in psychiatry to such therapies as insulin shock therapy and the convulsive therapies.

Echolalia. Seemingly an automatic repetition by the patient of remarks made in his hearing.

Echopraxia. Automatic imitation by the patient of movements and gestures made by the examiner or others in the vicinity of the patient.

Ego. The adaptive mechanism, in a sense the personality.

Emotion. A state of excitement characterized by a strong feeling tone. Any one of the states designated as fear, anger, disgust, grief, joy, surprise, yearning, etc. The physiologic responses occurring in connection with some instinctive emergency behavior of the organism.

Endogenous. From within. Often used in psychiatry to describe intoxications arising within the body and conditioning the appearance of psychotic symptoms, as for instance in the deliria of infectious diseases or in uremia. The application of "endogenous" is even broader, including any metabolic disturbance as a part

of which there are mental symptoms as in cardiac decompensation or in the endocrine dyscrasias.

Euphoria. An emotional reaction chiefly marked by a sense or feeling of well being.

Exogenous. From without. Often used in psychiatry to describe poisons which when introduced into the body condition the appearance of psychotic symptoms, for instance, alcohol and lead.

Extrovert. An individual who is "outgoing", social, active, energetic, a doer more than a thinker. Is more common in the pyknic habitus.

Falsification of Memory. Recalling incidents which probably occurred in the patient's past life and weaving them into the present. Often a prominent symptom in a Korsakoff's Syndrome.

Fantasy. A pathologic degree of daydreaming. Often used in psychiatry to indicate the mental life of many psychotic patients, notably schizophrenics, who live a life of fantasy, i.e., nonconcrete, wish fulfilling, and without obstacles or competition.

Flight of Ideas. A marked degree of distractibility of thought in which the direction of thought is rapidly shifted in one direction or another, under the influence of external sensory stimuli and inner thought association processes.

Fugue. A varying span of time for which the patient has an amnesia, although during such time he may have conducted himself in a normal manner.

Functional Symptoms, which, although they are definite and often objectively demonstrable,

nevertheless are not to be ascribed to structural pathology. They are conditioned by emotional conflicts.

Habitus. Physical characteristics and conformation. The study and the delineation of physical patterns and their alignment with dispositional and personality traits is an important aspect of psychiatry.

Hallucination. Literally, a sensation without an object. It is assumed that the "voices" the patients "hear" and the "visions" they "see" do not have any starting point or sensory stimulus. It is somewhat doubtful whether true hallucinations can occur, and it is not unlikely that they are illusions in which the sensory stimulus is not determined.

Hebephrenia. Silliness. A type of schizophrenia in which the deterioration of accessible emotional life tends to be rapid and profound.

Homosexuality. Having a personality pattern characterized by a fixation at, or reversion to, a stage in sexual development in which interests are predominantly directed toward those of the same sex. When used more specifically, or as a noun, the term refers to persons who seek sexual relations with members of the same sex, or to such acts.

Hostility. Aggressive antagonism, open or concealed, which may or may not be shown in outward acts, or recognized by the subject.

Id. The reservoir of instinctive energy, often primitive in its de-

Ideas of Reference. Beliefs and feelings often strongly held by psychotic patients, that happenings, often casual, refer to them, as, for instance, the chance cough of a passer-by or the taking of a handkerchief from a pocket, may be interpreted by patients as derisive, perhaps meaning, "There goes a filthy pervert."

Ideas of Influence. Beliefs and feelings on the part of psychotic patients that they are being "influenced" and perhaps controlled from various sources and means, usually mystical vibrations, x ray and other mysterious ray "machines", electrical machines and devices, thought collecting and thought controlling, etc.

Illusion. Misinterpreted sensations. For instance, an actual noise, like the rattling in a radiator, is interpreted by patients as a derisive or threatening voice, a shadow on the wall as the Virgin.

Inferiority. The result of trends in the direction of personal inadequacy and belittlement motivated by real or fancied physical handicaps and disabilities and social environmental dissatisfactions and deficits which, in general, are productive of emotional insecurity.

Insight. The capacity of some psychotic patients to view their own thinking and behavior and come to some degree of appreciation of the abnormalities involved.

Introjection (Identification). A mechanism which is used to merge or identify unsatisfactory self with others, usually with the unconscious motivation of but-

Introvert. An individual who is "ingrowing" and introspective, less energetic and active than the extrovert, not very social, a thinker and a planner but with certain inhibitions against translating thought into action. Is more common in the leptic habitus.

Involutorial. A chronologic life period marked by the occurrence of somatic and psychological climacteric and beginning recessive phenomena. In psychiatry the involutorial period, both in its duration and in its physical and psychological segments, is much more flexibly construed than in internal medicine and some of its specialties.

Katatonias. Literally, "to stretch tightly." In psychiatry its meaning is expanded to include a large group of symptoms, notably stupor, resistances, negativism, catalepsy, etc. Katatonic stupor may be largely resistive with negativistic symptoms or it may be suggestible with prominence of cataleptic phenomena. Katatonic excitement viewed objectively is seemingly a purposeless, often stereotyped motor excitement, detached from the environment.

Latent Homosexuality. A trend or drive in the personality in the direction of homosexuality of which the individual is not consciously aware.

Leptic. An asthenic body type, often associated with introverted emotional traits and prominent in the longitudinal rather than the girth measurements. Legs and lean elongated neck, poorly muscled, relatively small

and less adequate cardiovascular and endocrine systems.

Malignant. Often used in psychiatry to designate conditions which apparently are not recoverable and tending to end states of permanent deterioration.

Malingering. A conscious, more-or-less deliberate attempt to evade duty or responsibility by feigning illness.

Mannerism. Odd, bizarre and overelaborated performance of ordinary functions like walking in zigzag fashion, speaking in staccato fashion, chewing in rhythm, etc.

Mechanism. The entwined somatopsychic processes by which an objective is obtained. For instance, the mechanism of projection may operate to shift the guilt feeling arising from strong latent homosexual trends and fix the blame on external "enemies" who are "falsely accusing" the patient of perverted sexual practices.

Negativism. Not-conscious (and often having the appearance of automaticity) resistance to the environment from the patient. Originally interpreted as a muscle phenomenon, it is now given much wider application so that general attitudes are included.

Neologism. "New" words and phrases more-or-less unintelligible in themselves, but significant in the psychotic life of the patient.

Nosology. The science of naming.

Not-conscious Mind. A term used by the author to indicate the mental content of which the individual is not consciously aware. The use of the word not instead

of "sub" or "un" leaves unfixed the extent and the volume of the material of which the individual is not consciously aware

Obsession Domination of the mind and the personality by thoughts which the patient is unable to put out of consciousness. Obsessional thinking may or may not be translated into obsessional or compulsive behavior

Paranoid. Resembling paranoia. The behavior is indicative of distrust and suspicion, and there may be ideas of persecution. Paranoid symptoms present clinically in many degrees of severity and tenacity

Personality. A structure, the foundations of which are derived from inheritance, consisting of physical characteristics (habitus), intelligence, emotional traits, enthusiasms, biases, prejudices, tolerances, intolerances, habits, interests, hobbies, drives, tendencies, energy, vocational and avocational pursuits, social adaptabilities, sex and many other things

Phantasy. See Fantasy

Phobia Fear. Usually the patient is not aware of the source of the fear and in a sense the particular fear is a symbolic representation of material which cannot be faced in consciousness. Fears may be derived from the emotional traumata of childhood and according to some schools of thought may be the aftermaths of the phylogenetic experiences of our species. Phobic reactions are quite common, particularly in certain psychoneurotic conditions

Presbyophrenia. A variety of senile psychoses, in which in spite of surface mental alertness, there are marked defects of memory, retention and orientation, often with suggestibility so that the patient may readily be led into fabrications

Projection. A mechanism which operates by attributing innately determined difficulties to externals, i.e., people or conditions of life. In certain psychotic reactions the patient escapes too strong guilt feelings by the reaction of "they think" or "they say" instead of "I am." "They say I am a homosexual."

Preoccupation. State of being absorbed in one's own thoughts, oblivious to one's surroundings

Psychobiology. A fruitful conception on which views the individual in the long section of his life and in both the diagnosis and the treatment of the presenting maladaptation takes into account all important life happenings, somatic and emotional

Psychopathology. Dynamic pathology, not of structure, but of unresolved emotional conflicts

Psychosomatic. A word used to express the close relationship and the intimate entwining of somatic and emotional functioning and their reactive effects upon each other

Psychotherapy. The utilization of any legitimate treatment measure with the objective of influencing favorably the attitude of the patient toward himself, his illness and his environment in life

Pyknic. A bodily type often associated with extroverted person-

ality traits and marked by large girth measurements, often well muscled and short-necked with very adequate cardiovascular and endocrine endowments

Rapport. The relationship between patient and physician. Careful examinations and the personality and the understanding of the physician contribute to the establishment of satisfactory rapport.

Reactive. In response to. Often used to describe a depression which seemingly appears in response to severe environmental blows and in which the relationship between "cause" (the ill fortune) and the "effect" (the depression) is often established in the mind of the patient

Regression. Descending to lower levels of functional expression, as, for instance, the utilization of childish behavior, screaming and sulking in the attempt to dominate the surroundings. In some of the psychoses, notably schizophrenia, there is frequently evidence in the patient's attitude, posture and general behavior of deep regression

Repression. The relegation of material, usually highly charged emotionally, beyond the limits of consciousness, so that the patient need no longer "remember" it.

Retardation. Slowing of the stream of thought and of its verbal expression

Schizoid. The personality, usually introverted, to which an unknown factor has been added making the individual vulnerable to schizophrenic psychotic reactions.

Schizophrenia. Splitting of the psyche or personality. It appears clinically as an inadequacy of emotional reaction and an inconsistency between ascertainable thought content and its emotional accompaniments

Senile Plaques. Darkly staining fibrillar bundles, prominent in the neuropathologic picture of senile psychoses

"Shell-shock." A newspaper term for conversion hysteria, which occurs frequently in war

Substitution. The process or mechanism through which innoxious or emotionally less disturbing material is put in place of or substituted for emotionally disturbing material

Super-ego. The ego-ideal, the self critique, the ethical layer of the personality. It corresponds roughly to conscience

Symbolism. The process of economizing and condensing thought by representing it symbolically, as, for instance, the American flag displayed on proper occasion symbolizes the entire history of our nation. In psychotic reactions, notably in schizophrenia, the decadence of the symbol may be observed. Thought is too much condensed and abbreviated and its meaning oversymbolized, as, for instance, when a once very detailed and elaborated delusional system becomes represented by a bit of dirty cloth to which the patient points when questioned

Sytopic. The personality, usually extroverted, to which an unknown factor has been added, making the individual vulnerable to affective psychotic reactions

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